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No. 2198

MARCH 11, 1922.

VOL. XCVI.



THE BEST HOUSE FOR ALL PHARMACEUTICAL PRODUCTS

Proprietors of the "Silver Churn" Dairy Preparations.

OLDFIELD, PATTINSON & Co.
TELEGRAMS: "OPIUM." MANCHESTER.
PHONES: City 984 & 4038.



Samples on request
from
Allen & Hanburys Ltd
Bethnal Green, E.2.

NEW SEASON'S COD-LIVER OIL

We have received from Norway the first consignment of 1922 Cod-Liver Oil. It has the following characters:

Physical:	Colour—Very Pale.	Odour—Very Slight.
	Taste—Bland, with a minimum of fishy flavour.	
	Non-coagulable at 0°C.	Specific Gravity—0.924.
		Refractive Index at 20°C.—1.4789.
Chemical:	Acid Value	- - - 0.45
	Saponification Value	- 185 179 - 192
	Iodine Absorption Value	167 155 - 173
	Unsaponifiable Matter	- 0.67 not more than 1.5

This is Cod-Liver Oil of very high quality with an unusually low acid value.

WE ASKED WHY CHEMISTS SWEAR BY MAY, ROBERTS

Cheapness, Celerity and Accuracy are three good reasons, but we felt confident that there must be some further explanation why even those Chemists who do not yet buy from us use our reputation to ginger up our competitors. One of the answers is so comprehensive that we have obtained permission to reproduce it.

- (1) "Because of their unfailing courtesy in rectifying any errors of omission, overcharges or any other query."
- (2) "Their promptitude in executing orders."
- (3) "Their reasonable and fair charges."
- (4) "Their large and comprehensive stocks."
- (5) "There is no trouble of any kind with empties."

Our friend goes on to say "For instance, I posted an order to them on Saturday, February 18th, 1922, at 7 p.m., and the goods after travelling over two hundred miles by goods train arrived at 5 p.m. on Tuesday, February 21st.

THAT'S WHY MAY, ROBERTS' IS THE LEADING DISTRIBUTING HOUSE

Reason number one goes a long way towards supplying the missing link in our argument.

Put in another way it is the *personality* of May, Roberts' that has made fast friends of thousands of Chemists whom unfortunately we have never even seen.

This impression of personality has been built up in the mind by our obvious good will towards the Retailer, the recognition on our part that he has his trials as well as we, and that the only satisfactory business is that which leaves both parties satisfied.

We take this opportunity of advising our friends that we are issuing a full catalogue, all five departments between two covers, as early in April as our Printing Factory working overtime can accomplish it.

MAY, ROBERTS & CO., LTD.
7/13 CLERKENWELL ROAD, LONDON, E.C. 1.

And at Dublin and Plymouth.

Time is slipping away !

Our Special Offer of an extra discount of $1\frac{1}{2}$ d. per tin on all orders for the

NEW 7/6 TIN

of Glaxo holds good only until March 25th, 1922. This extra discount applies only to the 7/6 size. **HAVE YOU SENT IN YOUR ORDER YET ?**



The Super-Milk

"Builds Bonnie Babies"

STANDARD FULL CREAM GLAXO IS SUPPLIED TO RETAILERS AT THE FOLLOWING PRICES

Retail Prices.	Contents of tins.	Orders for small quantities.	Orders to value of not less than £6 net.	Orders to value of not less than £12 net.
1/6 per tin	5 oz.	14/5 per doz.	14/- per doz.	13/8 per doz.
2/6 " "	10 "	24/- " "	23/5 " "	22/10 " "
4/6 " "	20 "	43/2½ " "	42/1½ " "	41/0½ " "
7/6 " "	36 "	72/- " "	70/2 " "	68/4 " "

The special terms offered for orders to the value of not less than £6 net apply only when the goods are ordered in complete dozens (with a minimum of 2 dozen for the small size), except that the 7/6 size can be supplied in cartons containing either 6 or 12 tins. Goods to the value of not less than £4 net are carriage paid to the nearest Railway Station.

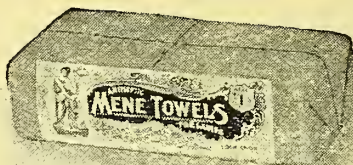
Orders should be addressed to the Chemist's usual Wholesaler

Proprietors: Joseph Nathan & Co. Ltd., London and New Zealand.



MENE SANITARY TOWELS

THE MENE TOWEL IS THE MOST COMFORTABLE TOWEL YET INTRODUCED AND IS ANTISEPTIC



REDUCED PRICES

	SIZE:—No. 0	No. 1	No. 2	No. 3	No. 4	
TRADE ...	7/10 $\frac{1}{2}$	10/2	13/6	16/10	19/1	per gross
To be retailed	10 $\frac{1}{2}$ d.	1/1 $\frac{1}{2}$	1/6	1/10 $\frac{1}{2}$	2/1 $\frac{1}{2}$	per dozen

These selling prices have been adjusted to return a profit, ON ALL SIZES, of 33 $\frac{1}{3}$ % on cost.

To assist our customers in selling the MENE we will furnish supply of SAMPLES for free distribution and also SHOWCARDS for display.

Obtainable from Wholesale Druggists or direct from Manufacturers:—

ROBINSON & SONS, LTD.

CHESTERFIELD.

And 168 OLD STREET, LONDON, E.C. 1.

Introducing the new
'Handy' size ENO to Retail at **1/9**
 (P.A.T.A.)
Increased Profits—Free Cases
More Advertising than ever

DEVELOPMENTS of UTMOST IMPORTANCE to all PHARMACISTS

To be able to offer ENO's "Fruit Salt" in two sizes is to add still further to its value as a rapid-selling, profitable line. Without interfering with your present sales of the familiar 3/- bottle, the new "handy" size, at 1/9, satisfies the need, often expressed, for ENO in a more convenient form.

Simultaneously with the introduction of the 1/9 size, our Window Display Offers have been greatly improved, and under these revised terms, your profit (P.A.T.A.) per bottle is 8d. to 9½d. on the 3/- (Household) size, and 4½d. to 5½d. on the 1/9 (Handy) size, according to quantity ordered.

In addition, ENO is delivered Carriage Paid in FREE Cases (non-returnable). To ensure early delivery you should send in your order without delay.

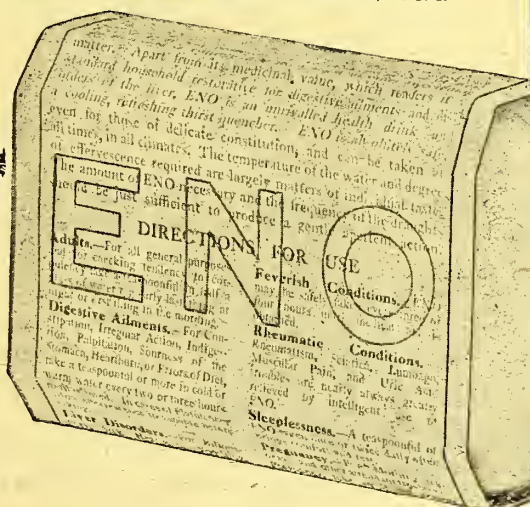
We are introducing the Handy size by the most vigorous ENO National Advertising Campaign ever undertaken. Large advertisements will begin to appear on March 17 in nearly 400 leading newspapers and periodicals, with a combined net sale of over twenty million copies per issue.

Complete particulars of these important developments are given in the special trade circular, a copy of which has been posted to you.

CHEMISTS WHO HAVE NOT RECEIVED DETAILS of the SPECIAL OFFERS and REVISED TERMS for

ENO'S FRUIT SALT

are invited to apply to the SALES MANAGER, J. C. ENO, Ltd., Central Buildings, Victoria Embankment, LONDON, E.C.4.



The words
"ENO" and
"FRUIT SALT"
 are our
Registered
Trade Marks

A Reduced Photographic Illustration of the HANDY Size ENO at 1/9

Important Announcement



JOHN BELL, HILLS & LUCAS, Ltd.

Manufacturing and Wholesale Druggists,

Oxford Works, Tower Bridge Road, London, S.E. 1.

OUR attention has been drawn to a Wholesale Drug Price List recently issued by Messrs. John Bell & Croyden, Ltd., of Giltspur Street and Wigmore Street, London.

As we have many evidences that confusion exists in the minds of our customers as to the separate entities of that Company and ourselves, we think it desirable to state the following facts :—

- (1)—In 1908 and 1909 the old business of John Bell & Company, Oxford Street, W., was split into two private limited companies
 - (a) The retail portion, by 'combination with Croyden & Co., Ltd., became John Bell & Croyden, Ltd., of Wigmore Street, W.
 - (b) The wholesale and manufacturing portion became JOHN BELL, HILLS & LUCAS, LIMITED.
- (2)—Until the early part of 1921 our Chairman (Mr. Walter Hills) and our Managing Directors (Messrs. E. W. Lucas and J. Stuart Hills) were respectively Chairman and Directors of John Bell & Croyden, Ltd., and together exercised a controlling interest in that Company.
- (3)—Early last year our Directors above-mentioned sold practically all their holding in John Bell & Croyden, Ltd., and retired from their Board of Directors.
- (4)—Thus there is now no connection between the two Companies. We exercise no control nor influence over John Bell & Croyden, Ltd., nor do we supply them direct with any of our products.
- (5)—No change has taken place in the controlling interest of John Bell, Hills & Lucas, Ltd.

Possessing all the manufacturing experience acquired during so many years at Oxford Street, and more recently at our factories at this address, we are well equipped to supply all the medicinal preparations (packed or in bulk) the retail pharmacist requires, and we hope to continue to receive the support of all those who know the quality of our products and our desire to give courteous, prompt, and willing attention to their orders.

JOHN BELL, HILLS & LUCAS, Ltd.

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"STAFFALLENS"



EXTRACTS.

ALOE
BELLADONNA
CANNABIS
CASCARA
COLOCYNTH
DAMIANA
ERGOT
FILICIS
GENTIAN

GLYCYRRHIZA
HYOSCYAMUS
IPECAC.
OPIUM
NUX VOMICA
SARSAPARILLA
TARAXACUM
etc. etc.

TERPENELESS OILS.

LEMON, LIMES, ORANGE,
etc.

OTTO of Rose.

BULGARIAN & ANATOLIAN

RESINS, etc.

JALAP
PODOPHYLLIN
SCAMMONY
ALOIN

GINGERIN
CAPSICUM
etc. etc.

SYNTHETICS.

BENZALDEHYDE
EUGENOL
ISO-EUGENOL
CITRAL

"STAFFALLENS"

Essential and Expressed OILS

OIL of Almonds, True
OIL of Apricot Kernels
OIL of Patchouli
OIL of Bergamot
OIL of Lemon
OIL of Nutmeg
OIL of Orris (Concrete)
OIL of Sandalwood, E.I.
OIL of Peppermint, English,
American, Japanese.

STAFFORD ALLEN & SONS, LTD.

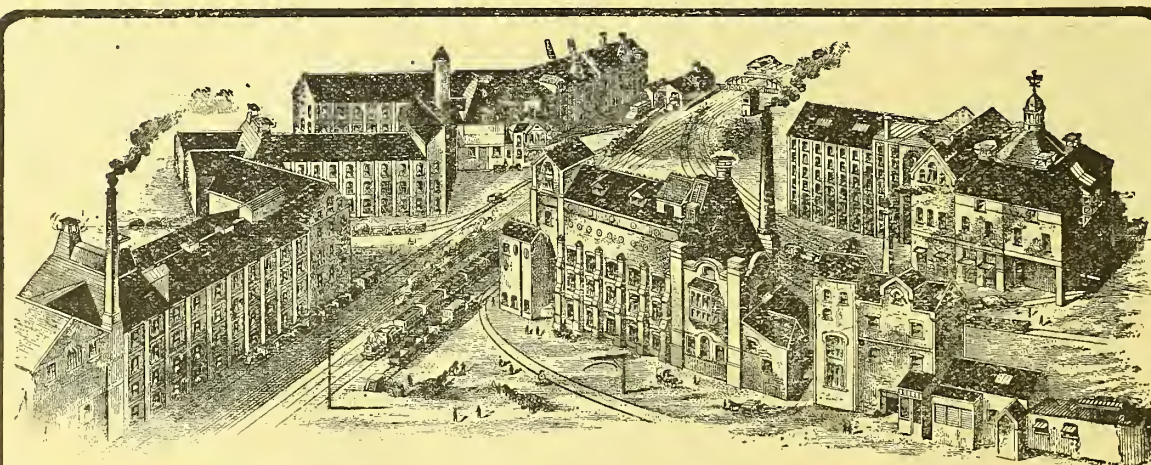
Cowper Street, Finsbury, LONDON, E.C. 2.

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SPECIALIZING.—The above Maltings, Malt Extract Manufactories and Laboratory of **H. A. & D. TAYLOR, Ltd.**, and the **BRITISH DIAMALT CO., SAWBRIDGEWORTH**, specialize in the manufacture of high-class Malt Extract Products. The leading Manufacturers of Malt Extract with Cod Liver Oil. Packed in Jars, Tins, etc., to meet clients' requirements.

Prices, Specimen Labels, Showcards, etc., on request.

H. A. & D. TAYLOR LTD., PROPRIETORS OF THE BRITISH DIAMALT COMPANY,

CITY OFFICE: 9 HOLBORN VIADUCT, LONDON, E.C. 1.
 Phone: 1765. Telegrams: "Nutrimalt, Cent, London."

LIVERPOOL OFFICE: ARCADE BUILDINGS, 9 LORD STREET.
 Phone: Bank 3489.

LABORATORY AND WORKS: SAWBRIDGEWORTH, HERTFORDSHIRE.

Also at BURY ST. EDMUNDS, BISHOP'S STORTFORD, NEWMARKET, etc

Two New Lines

Extensively Advertised.

WRIGHT'S LYSOL

			Wholesale
4-oz. size, P.A.T.A. Retail	1/-		7/3 per doz.
8 " " " "	1/9	12/3	"
16 " " " "	3/-	21/-	"
32 " " " "	4/9	34/-	"
½-gallon tin	"	7/6	5/- each
1 " " " "	12/6	8/3	"

BONUS GIVEN FOR WINDOW DISPLAY.

WRIGHT'S COAL TAR OINTMENT

PRICE
2/9

Wholesale Price **26/-** per doz.

or with £9 Orders of WRIGHT'S COAL TAR SOAP,
22/9 per doz.

Proprietors and Manufacturers :

WRIGHT, LAYMAN & UMNEY, Ltd.
SOUTHWARK, LONDON, S.E. 1.



REG. TRADE MARK

On March 11th

Southalls' SANITARY TOWELS

WILL BE REDUCED

to the following prices—

The Prices of Southall's
COMPRESSED TOWELS
have not been altered.

They are as follows :

Size	A	...	TRADE Per Gross	...	RETAIL Each
	A	...	13/11	...	/1½
	B	...	18/6	...	/2
	C	...	23/1	...	/2½
	D	...	27/8	...	/3

SIZE	...	TRADE Per Gross	...	RETAIL Per Dozen
0	...	8/-	...	/10½
1	...	10/-	...	1/1
2	...	13/10	...	1/6
3	...	16/11	...	1/10
4	...	19/3	...	2/1
5	...	26/2	...	2/10
X	...	28/5	...	3/1
XX	...	30/-	...	3/3
Blue	...	30/-	...	3/3

Southalls' NURSERY & TOILET POWDER

Antiseptic and Delightfully Fragrant.
Invaluable in Every Household.

Size	1	...	TRADE Per Dozen	...	RETAIL Each
	1	...	6/5	...	/9
	2	...	8/8	...	1/-



SOUTHALL BROS. & BARCLAY, Ltd.
SALTLEY, BIRMINGHAM.

“N.C.F.” Brand

COCAINE & SALTS

ÆTHOCAINE

(Chemically and physiologically identical
with Novocain).

HOMATROPINE

& SALTS

Manufactured by

THE NEDERLANDSCHE
COCAINEFABRIEK,
AMSTERDAM.

“RHODIA” Brand

ANTI-PYRETICS

GUAIACOL PRODUCTS

PHOTOGRAPHIC

CHEMICALS

SALICYLATES

VANILLIN

and other fine chemicals.

Manufactured by

SOCIÉTÉ CHIMIQUE
DES USINES DU RHÔNE,
PARIS.

QUININE and SALTS

QUININE DICARBONATE

QUININE ETHYLCARBONATE

CINCHONIDINE

CINCHONINE

QUINIDINE

QUINOIDINE

AND SALTS

Manufactured by the

BANDOENGSCHE KININEFABRIEK
AMSTERDAMSCHÉ CHININEFABRIEK
NEDERLANDSCHE KININEFABRIEK

Apply to

SOLE AGENTS FOR THE UNITED KINGDOM

Tel. No.
City 6550
(8 lines)

R.W. Greeff & Co. Ltd.
THAMES HOUSE, QUEEN STREET PLACE, LONDON, E.C.4.

Tel. Add.
“Greeff Cannon,
London.”

Branch Office

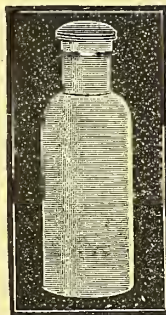
PALATINE BANK BUILDINGS, 10, NORFOLK ST MANCHESTER.

Tel. No City 5706/7.

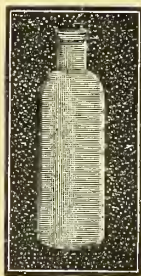
Tel. Add. Greeff, Manchester.

Delivery in Three to Six Weeks—perhaps!

This is the usual idea of prompt delivery, but it is not so with GLASS-WARE supplied by LANG'S, because their huge stocks of miscellaneous lines can meet most of the urgent requirements of the trade, though naturally we do not stock everything. What can we do for you NOW?



KALI

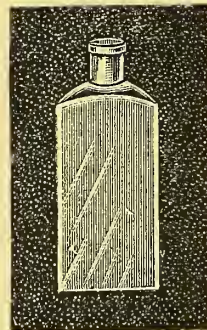


LIME

Bottles,
Jars,
Chemical
and
Laboratory
Glassware
in immense
variety.



Narrow-mouth SHOP ROUND



MEDICAL

Wholesale
ONLY

JULES LANG & SON

No RETAIL
Firms supplied.

Charlton Works - Charlton Place - Islington - LONDON, N.1.

(Opposite Agricultural Hall)

Telephones: North 2770-2 (3 lines).

Telegrams: "ASSORTED, PHONE, LONDON."

Codes: ABC, 5th Edition. Scott's 10th Edition (1906).

Bentley's Complete Phrase Code.

WHEN ENQUIRING, PLEASE MENTION THIS PAPER.

YOU MUST KNOW

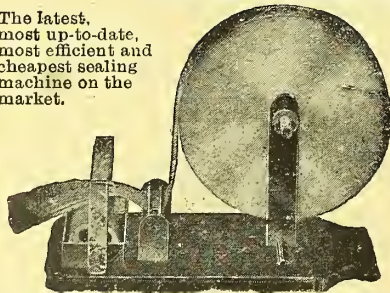
if you are using String, Twine, or Wax for packing, how slow, expensive and clumsy any of these methods are.

GUMMED TAPE is being used by most of the large and up-to-date Firms. But to make sure of Efficiency in your Packing Department use the best Moistener on the Market—KING'S "AWLMETAL."

As the name denotes, this Moistener is made completely of Metal. Do not waste time and Money in buying Wooden Machines which will cost you more and will soak up the moisture into the wood and quickly become unusable.

The "AWLMETAL" Moistener will last a lifetime.

The latest, most up-to-date, most efficient and cheapest sealing machine on the market.



PRICE
12/6
EACH

Gummed Tape
Extra.

Points.—All metal non-rustable bath and brass roller. Special device to keep tape off roller when not in use. Nickel Cutter. Will take one roll up to 3 in. width or two 1 in. rolls. Takes up small space—viz. 11 x 5 1/2 in. The whole machine takes to pieces for cleaning purposes.

Send a Postcard for a Machine on approval at once.

GUMMED TAPE for use with King's "AWLMETAL" Moistener. No. 684 Brown Tape Kraft, width 1 in., length 800 ft., at 2/1 per roll, 24/- per doz.

Gummed Tape can be had in all sizes, qualities, and colours. If required specially printed, send us particulars; we will quote Special Prices by return.

Sold by **J. C. KING, LTD.** [1]

Specialists in all kinds of Stationery and Time-Saving Appliances.

42-60 Goswell Road, London, E.C.1.

GLASS BOTTLE MANUFACTURERS

FLATS, PANELS,
MEXICANS, Etc.

of all descriptions and
sizes in MEDICAL TINT.

PRICES OF FLATS in demand—

3 & 4-oz.	6 & 8-oz.	10 & 12-oz.
14/-	18/-	23/-

Other Sizes and Shapes at Proportionate Prices.

MINIMUM QUANTITY, One Gross.

F.O.R. Hull, Packages Free.

SPECIAL QUOTATIONS ON APPLICATION.

HULL BOTTLE & GLASS CO., Ltd.

"THE WORKS,"

Cumberland Street - - HULL.

Maw's



Page

March 11, 1922.

No. 543.

Ask yourself these questions before you buy

Successful trading is not merely a matter of pushing goods which yield exceptionally high immediate profits.

The wise chemist, before he decides to handle a line, asks himself, "What measure of satisfaction will these goods afford my customers?" "How much will they increase my reputation and the value of my goodwill?" "How much future business will a sale make?" "What amount of effort is required to make sales?"

The goods that will make your business increasingly and permanently profitable are those which sell easily because they are produced by a manufacturer with a reputation for quality and reliability, goods which make satisfaction to your customers and repeat orders certain, goods which show a reasonable profit on each sale and direct a constant stream of future profits towards your till.

The products of the House of Maw are all within their category. Every line which bears the name of "MAW" has the reputation of 114 years of satisfactory service behind it and will help to secure your present and future prosperity by yielding a fair immediate profit and affording the utmost satisfaction to the purchaser.

Remember also our products are sold to chemists only. You protect yourself from outside competition when you concentrate on Maw's goods.

Telephone:
City 7
Private
Branch
Exchange

Telegrams:
Eleven
Cent
London

S. Maw, Son & Sons, Ltd.
Aldersgate St., London.
and Barnet.

Cables:
Eleven
London

Code
A.B.C.
4th & 5th
Edition



CEPHOS

REGD

The Safe, Certain
and Scientific Remedy

for

Headache,
Neuritis,
Neuralgia,
Rheumatism
and Influenza

GOOD, forceful advertising is creating
a national demand for "CEPHOS."
Stock NOW and ensure your share of the
big business.

Study these Liberal Trade Terms :

Minimum Retail Price 1/3 and 3/-
Price to you per doz. 12/- and 30/-
Bonus of 10/- on £5 worth for
fourteen days' window display.

Loose Powders retailed at 2½d. each
yield 99 % profit.

Send Postcard for interesting Folder.

You can obtain "CEPHOS"
through usual Trade channels,
or direct from

Cephos Ltd.
BLACKBURN.

Sole Distributing Agents for ALL territory
outside Lancashire and Yorkshire :

THOS. CHRISTY & CO., 4/12 Old Swan Lane,
LONDON, E.C. 4.



Flies! Flies!! Flies!!!

Before making any arrangements for
the coming season, do not fail to secure
samples of the

"ROLO"
FLY-CATCHER

The Neatest and Cleanest on the
Market.

The Catch of the Season!

Made in 2 sizes—1d. and 1½d.

Samples and prices are at your command.

STONEHOUSE BROS.

High Street, Old Basford,
NOTTINGHAM.

Dr. DE JONGH'S

LIGHT BROWN

COD LIVER OIL

IN IMPERIAL HALF-PINTS, 4/-

ANSAR, HARFORD & CO., LTD.

182 Gray's Inn Road - - LONDON

SOLE CONSIGNEES.



FINEST
QUALITY.
PERFECTLY
SOUND
CONTAINERS

WATER GLASS

FOR EGG PRESERVING

It will pay you to write

Tomlinson & Hayward, Ltd., Lincoln.

A reference to "Montserrat" Health Salt will be made in every "Montserrat" Lime Juice Press Advertisement, and on every bottle sold during 1922.

HEALTH SALT

"MONTSERRAT"

IS a name which the public knows. But it is not limited to the famous Lime Juice. "Montserrat" Health Salt has this year been brought to such a pitch of efficiency that we now claim there is none to rival it in its combination of effectiveness, fine keeping qualities and delicious Lime flavour which entirely masks any bitterness.

6/9 "subject" in smalls. In one delivery.

6/- net in 1 gross lots. „

5/9 net in 5 gross lots. „

With orders of 1 gross and over, a complete Window Display is supplied.



ROUND RED 4-OZ. TINS.

A first class quality unflavoured HEALTH SALT. Also supplied in Three-coloured Enamelled Tins.

6/3 "subject" in smalls. In one delivery.

5/6 net in 1 gross lots. „

5/3 net in 5 gross lots. „

THREE-COLOURED ENAMELLED TINS ONLY.

Name or brand enamelled on LID free :—

5/3 net in 10 gross lots. In one delivery.

Name or brand enamelled on BODY free :—

5/3 net in 25 gross lots. In one delivery.

£5 orders carriage paid.

EVANS SONS LESCHER & WEBB Limited.
LIVERPOOL. New York. LONDON.

Endorsed by
the Medical
Profession.

(Original shown on
application.)



Approved by
Eminent
Bacteriologists.

(Original shown on
application.)

THE GREAT ATMOSPHERIC DISINFECTANT.

For the Daily Disinfecting by Spraying of Offices, Banks, Factories, Institutions, Schools, and the Home.

THE SURE PREVENTATIVE OF INFLUENZA, DIPHTHERIA, SCARLET FEVER, and other
CONTAGIOUS DISEASES.

RETAILED AT:—

Size (o)	Containers to make	ONE	Gallon	-	6/9
" (a)	"	TWO	"	-	12/6
" (b)	"	THREE	"	-	17/6

COMPLETE OUTFIT consisting of Size (a) container, Sprazone Sprayer & Filter Funnel, £1 1 0

Sample Bottles sufficient to make ONE QUART of Sprazone Disinfectant at 21/- per doz.

LIBERAL TRADE DISCOUNT

EXHIBITION AND DEMONSTRATIONS. TERMS ON APPLICATION.

Obtainable from all Chemists and Druggists' Sundriesmen.

United Laboratories & Chemical Co. Ltd.

Registered Offices: 97 QUEEN VICTORIA STREET, LONDON, E.C. 4.

Wires:
"UNILAB, CENT, LONDON."

Laboratories: CAUSEWAY HOUSE, S.E. 1.

Phone: CITY 4548 and 4549
(Private Branch Exchange).

P.A.T.A. NOTICE.

18 Tavistock Square, W.C. 1.

Revised Prices come into force on dates specified below:—

March 11th, 1922.

Evans Sons Lescher & Webb Ltd., Elco Preparations—

Size		M.R.P.	M.W.P.	Size		M.R.P.	M.W.P.
25's	Aspirin Tablets ...	7½d.	3/9	1/6	Glyc. & Cucum. ...	1/6	10/6
100's	" " " " ...	1/6	9/-	1/9	Family Cough Syrup ...	1/9	12/-
2/-	Bay Rum and Canth. ...	2/-	14/-	2/6	Hair Invigorator ...	2/6	18/-
2/-	Beauty Cream ...	2/-	14/-	1/-	Headache & Neur. Tabs. ...	1/-	6/6
2/-	Blood Purifier ...	2/-	14/-	4-oz.	Household Embrocation ...	1/6	11/6
1/3	Borated Dusting Powder... ..	1/3	9/6	3/-	Hypophosphitos ...	3/-	22/-
2/6	Boroformic Soap ...	2/6	19/6	2/4	Liver Tonic ...	2/4	16/6
1/3	Brilliantine Cryst. ...	1/3	8/6	1/-	Rubbing & Healing Oint. ...	1/-	6/6
4-oz.	Carlsbad Powder ...	1/9	13/6	1/9	Saline ...	1/9	13/6
8-oz.	" " " " ...	3/-	20/-	1/9	Shampoo Powders, 7's ...	1/9	14/-
4-oz.	Chemical Food ...	1/3	10/-	3d.	" " " " loose ...	3d.	gross 18/-
8-oz.	" " " " ...	2/3	16/6	1/3	Syrup of Figs ...	1/3	doz. 9/6
10d.	Chilblain Tablets ...	10d.	5/-	1/9	Tooth Powder ...	1/9	13/-
1/-	Cold Cure Tablets... ..	1/-	6/-	1/9	Vanishing Cream ...	1/9	13/-
1/3	Dental Foam ...	1/3	9/-	1/6	Witch Hazel Foam ...	1/6	11/-
1/9	Digestive Syrup ...	1/9	13/-	5% discount off orders of £5 value, which may be assorted (including Malt and Oil), but special terms for larger quantities of Malt and Malt and Oil. Further 5% discount off £50 orders, which may be assorted (ex- cluding Malt and Oil for which there are special terms).			
6-oz.	Emul. C. L. O. ...	1/9	12/-	Revised prices come into force immediately.			
12-oz.	" " " " ...	2/6	18/6	1/9	Morgan's Pomade ...	1/9	doz. 14/-
1-lb.	Extract Malt ...	1/7	14/3	3/3	" " " " ...	3/3	26/-
2-lb.	" " " " ...	2/10	24/9	Less 5% on 3 dozen lots; 7½% on 6 dozen lots; 10% on 12 dozen lots.			
4-lb.	" " " " ...	5/6	47/3	Revised prices come into force, April 1st, 1922.			
1-lb.	" " " " and Oil ...	1/8	14/9				
2-lb.	" " " " " " ...	3/-	25/9				
4-lb.	" " " " " " ...	5/6	49/6				
10d.	Foot Tablets ...	10d.	5/-				



Ayrton's Famous Enema Syringes

The "G.B.M." (Guaranteed British made) — The perfect seamless continuous Enema Syringe. Superior finish. Black polished, or red or green "velvet-like" finish. Complete with all fitments in smartly-labelled oval box, with full directions for use.

Per dozen, 37/- 3-dozen lots, per dozen 35/-

The "NEM CON."—A well-finished Enema Syringe, complete with all fitments in attractively labelled box, with full directions for use.

Per dozen, 34/- 3-dozen lots, per dozen 32/3

The "MONICA." — An excellent value Enema Syringe. Black polished only; complete with all fitments in well-labelled oval box, with full directions for use.

Per dozen, 31/- 3 dozen lots, per dozen 29/6

All the above Syringes are all-British make, and guaranteed to give entire satisfaction.

Samples of any one, or all, post free at dozen prices.

**Dr. MONROE'S
ROTARY VAGINAL
DOUCHE.**

Full size, red velvet finish.
Per doz. 54/-

Export prices on application.

AYRTON, SAUNDERS & Co. L^{TD}
Manufacturing Chemists **Hanover Street, LIVERPOOL**

Telegrams : "SUNDRIES LIVERPOOL."

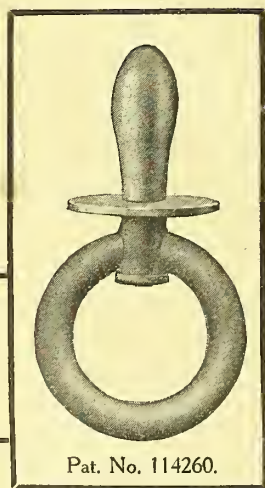


*In containers of 2 dozen,
with beautiful Coloured
Plate as Illustration.*

This method of packing
is far superior to the
unhygienic card.

Made by a patented method
from purest India Rubber.

It is without taste or smell; it is
practically indestructible, and the
shield is guaranteed not to pull
off with ordinary use. The most per-
fectly made all-rubber soother ever
offered for sale.



Pat. No. 114260.

*Ask your Wholesale House
for the "SIMPLIC" Soother*



The "DISTOL" LABEL SERVICE

RETAILERS of "Distol" Ottos have at their command a large choice of attractive label designs, some of which are here shown. These labels are sold in quantities of 100 with neckbands *en suite* at a nominal cost which in many cases includes imprinting also. Write to-day for specimens, naming the "Distols" you are interested in.

There are 40 "Distol" Ottos, costing 7/6 per oz. net (making 80zs. of choice perfume). :: Ask for samples.



Most of these labels
are stocked both 1 $\frac{3}{4}$ "
and 1 $\frac{1}{2}$ " high.

THOMAS KERFOOT & CO LTD
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N1
ESTABLISHED 1797.

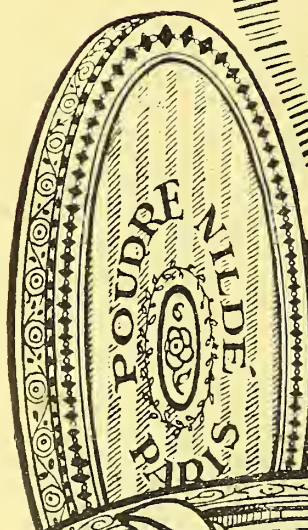
COPYRIGHT

Poudre Nildé

IN THE
SIFTER
BOX

POUUDRE NILDÉ does not stay on your shelves from one week's end to another. It keeps moving—from the shelf to the counter—from the counter to the customer.

Poudre Nildé attracts the kind of customer you want—the woman who studies her personal appearance—the woman who will have nothing but the best in soaps, perfumes, lip-salves, face-creams, etc. This kind of customer is well worth having. She buys frequently and she recommends you—and Poudre Nildé—to her friends.



NILDÉ,
Paris.

British & Colonial
Agents:
8 BLENHEIM ST.
LONDON, W. 1.

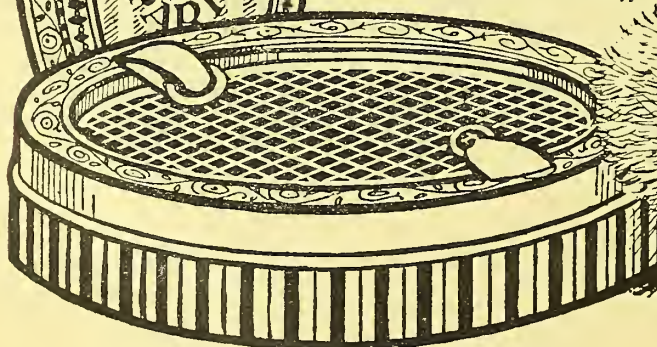
Thus Poudre Nildé not only increases your turnover and profits—it builds up goodwill for you. It helps your business all round.

Made in six shades—Rachel, Naturelle, Blanche, Rose, Basanée and Indienne.

Handbag size, 1/-; medium, 2/-; large, 3/6

Leather or fancy embroidered Vanity Cases with mirror in lid. Small size, 5/-; medium, 7/6; large, 10/-

**All Nildé preparations show
33⅓ % profit on selling price.**



Savon Nildé

The Creamy Lather Soap

Price per Tablet 1/-

Cartons containing
3 Tablets - - 3/-



YOU will do well to display Savon Nildé—and other Nildé preparations—in your window. In doing this you will attract two kinds of people: those who have bought Nildé goods before and only want a reminder to buy again—and those who are half won over by our advertising. Keep old customers and get new ones.

OTHER NILDÉ PREPARATIONS

ROUGE INVISIBLE NILDÉ.

Brune or Blonde

In the sifter
box with puff
1/6



CRÈME DE BEAUTÉ NILDÉ

Blanche or
Naturelle, 2/-

Large size, 3/-



NILDÉ LIP SALVES

In elegant metal
containers.

White - 9d.

Rouge or
Carminé 1/-



NILDÉ, Paris

British & Colonial Agents:
8 BLENHEIM ST.,
LONDON, W.1.

HOVENDEN'S TOILET PREPARATIONS



No. 4807.
**TALCUM TOILET
POWDER.**

Assorted Perfumes.
No. 4807. 7/6 doz.
87/- gross.

DRY SHAMPOO POWDERS



- No. 4554. 1 doz. on card ... 18/- doz. cards.
No. 4554/5. 5 packets in carton 8/6 doz. cartons
No. 4554/7. 7 packets in carton 10/6 ..
No. 4484. Oval Sprinkler Tops,
hinged lids ... 10/6 doz.



No. 4484.
Oval Sprinkler Tops,
hinged lids.

**SPECIAL QUOTATIONS FOR
QUANTITIES.**

POPULAR SHILLING SHAVING STICKS



No. 3940. Card Cases, 7/6 doz. ; 87/- gross.

□ Yield
Abundant
Creamy
Lather.



No. 4626. Metal Cases, 7/6 doz. ; 87/- gross.

Subject to 2½% discount.

A copy of our Monthly Illustrated List will be sent on application.

R. HOVENDEN & SONS, Ltd.

89, 91, 93 & 95 CITY RD., FINSBURY, E.C. 1.

Tel. : 6260 London Wall (2 lines).

And 29, 30, 31, 32 & 33 BERNERS ST., OXFORD ST., W. 1.

Tel. : Museum 2810 (3 lines).

LONDON.

Factory : 41 to 53 BRITANNIA ROW, ISLINGTON, N.

48 NEW CUSTOMERS FOR SOMEONE!

Why 48 New Customers?

Because this offer enables you to make 48 delightful presents to the first 48 passers-by who, reading **YOUR** offer, enter your shop. This opportunity is something of an innovation, but the present times demand special efforts. The depression of the past year has borne very hardly upon traders generally, and chemists in particular, and in order to boom business during the next few weeks, we have devised this method by which you can increase your business and bring new customers into your shop. Under this scheme **YOU ARE ENABLED TO GIVE AWAY ENTIRELY FREE OF CHARGE** to each customer purchasing from you a 1/6 jar of Oatine Cream, either a full-sized jar of Oatine Snow, or one of Oatine Shaving Cream, or a tube of Oatine Tooth Paste, according to the individual requirements of the customer.

We suggest that you should order from us 4 dozen 1/6 jars of Oatine Cream at 14/5 per dozen, less a Window Display Bonus of 10% and a further 2½% for cash in 30 days. With this order we should send you, free of charge, 2 dozen 1/3 jars of Oatine Snow, 1 dozen 1/3 jars of Oatine Shaving Cream, and 1 dozen 1/3 tubes of Oatine Tooth Paste; also a special showcard, two window streamers, and 100 counter bills, as illustrated hereon. You may, of course, vary the proportion of the free articles as you wish, provided that not less than 4 dozen small jars of Oatine Cream are ordered.

96 if you say so!

If you feel you would like to have double the number of new customers, you can do so by doubling your order. With an order for 8 dozen, we supply 200 handbills.



SHOWCARD IN COLOURS.



100 HANDBILLS.

You get the Credit—Our Name does not appear

Please bear in mind that our name does not appear on any of the display matter. We feel convinced that this arrangement will meet with your approval, and the appearance in your windows of the advertising matter announcing this offer, will mean bigger and better business for both of us. All orders in reply to this offer must be received by the 25th of March, as this offer is limited to that date. A postcard with your name and address, and a reference to this advertisement is all that is necessary. If double quantity is required, state "double quantity."

THE OATINE CO., OATINE BLDGS., BOROUGH, S.E.1



DE LUZY
Parfumeur
PARIS



OUR
**ADVERTISING
CAMPAIGN**

is now in the hands of
PAUL E. DERRICK
ADVERTISING AGENCY

a firm who have contributed
largely to the success of

PEPSODENT

"JOHNNY WALKER"

QUAKER OATS, etc.

A bold and attractive plan has
been conceived, including a
Cash Competition for **TRADE**
and **PUBLIC**.

DE LUZY

is going to be a
Big Seller!

WRITE FOR PARTICULARS.

DE LUZY

(London Office)

3 London Wall Avenue, E.C. 2

W. H. CALNAN, General Manager

Telephone: Wall 9966

"Jackel's Cream"

(without Grease)
for THE HAIR

Sold everywhere

Established 1883.



CRYSTALLISED
1/9 CREAM 2/6
Trade Mark attached to each
bottle.

"Jackel's Cream"
fixes the hair in any de-
sired position; is un-
excelled as a dressing
and does not soil the
headwear. It removes
Scurf and Dandruff,
keeps the scalp healthy,
and promotes the natu-
ral growth of the hair
while maintaining its
softness and brilliancy.

Prices for Wholesale and Export
Houses on application.

Jackel et Cie (of Paris)
Ltd.,
Sauchiehall Street,
GLASGOW.

Synthetic
15/- oz.

OTTO ROSE

AS GOOD AS VIRGIN OTTO.

Write for Samples.

LEE & SILVERWOOD, 24a FOUNTAIN ROAD, HULL.

Synthetic
7 6 oz.

OTTO NEROLI

AN EFFECTIVE BASE FOR EAU DE COLOGNE.

CRÈME CHÂTEAU
and
POUDRE CHÂTEAU

A Toilet Cream manufactured by

Babette, Ltd. 28 EAGLE STREET,
LONDON, W.C.1.

TERMS ON APPLICATION.

ARCHIBALD'S OATMEAL CREAM

For Summer and Winter Use.

Soothing, Softening, Whitening. Free from Grease.

Retails at 7½d. & 1/3 per tube.

Wholesale 5/- doz. 10/- „ doz.

Wholesale from Butler & Crispe, Sangers', May, Roberts'.

WRITE FOR SPECIAL TERMS FOR LOCAL AGENTS—

F. E. FARMAR, M.P.S. (late WALTON & CURTIS)

190 Broadhurst Gardens, West Hampstead, N.W. 6

Phone: Hampstead 1125.

With Only One Writing **The McCASKEY SYSTEM** The End of Drudgery

FIRST AND STILL THE BEST

SAVES TIME AND LABOUR

THE McCASKEY REGISTER CO., WATFORD

(3)

HAVE YOU SEEN OUR LATEST CREATIONS IN POWDER PUFFS ?

WHY not make a point of seeing them displayed in our Showrooms. If unable to pay us a visit, we will gladly instruct our representative to call upon you with a full range of samples.

Our fancy designs in Powder Puffs are all fast-selling lines, and wherever shown compel business by their daintiness and relatively low price.

A careful perusal of our new Price List, posted on request to Wholesalers and Shippers only, will convince you.

Our mass production enables us to supply you with the very best at most advantageous prices.

Seeing is believing. Let us quote you, and thereby reap the benefit.

Be sure to get your next supply from

J. R. BOURLAT, GOES & CO.

(The Powder Puffs Manufacturers with Ideas)

22 PRINCE'S ROAD, HOLLAND PARK, W. 11. Phone: Park 2592.

DELIVERIES FROM STOCK.

OINTMENT POTS. :: DROP BOTTLES.
CORN SOLVENT BOTTLES. EYE BATHS.
CACHETS AND CLOSING MACHINES.
EYE SHADES. :: FINGER STALLS.
RUBBER GOODS. CELLULOID GOODS.
HOUSEHOLD THERMOMETERS.

G. HEISER,

The Telma Mfg. Co.,

182 Kingsland Road, LONDON, E. 2.

F. W. OLDER, 37 WALBROOK,
E.C. 4.

Successor to HERBERT M. LONGCROFT & CO., Ltd.

CAPPING SKINS

OF ALL KINDS.

AMPOULES

BOTTLES

SPRINKLERS

CLINICALS

HYPODERMICS

THERMOMETERS

BRUSHES

DRUGGISTS' SUNDRIES.

Tel. No.: City 7637.

*They'll ask for
them — Here
are reasons why!*

PEOPLE are going to ask for Héra Products.—Why?

Firstly, a strong and thorough Advertising Campaign has been started; secondly, Héra perfumes and preparations make an irresistible appeal; and thirdly, they are high-class quality goods which always please and are consequently always in demand.

Everything will be done to create sales and keep up demand—watch Héra advertising in high-class journals. It is up to you to have them in stock when they are asked for.

Fix up now—the most liberal trade terms are allowed.

Be prepared for the demand that will follow.

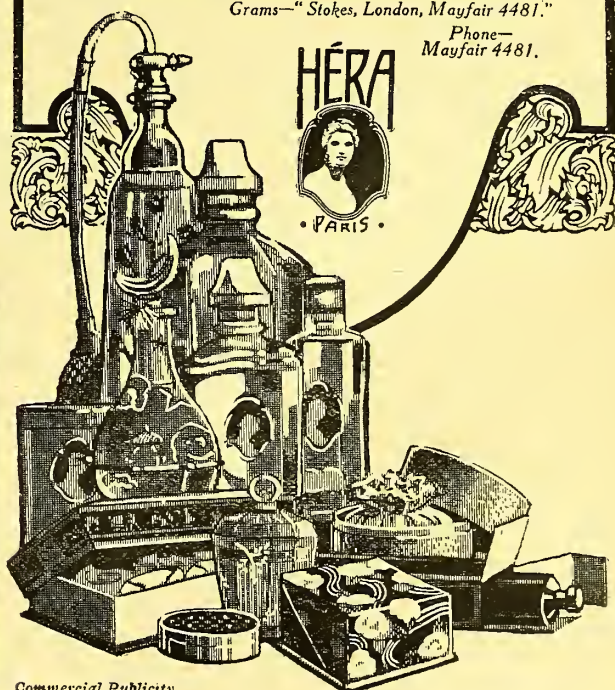
Write for full information, terms and samples to—

WALTER E. STOKES & CO.

8 Woodstock St., Oxford St., LONDON, W. 1.

Grams—"Stokes, London, Mayfair 4481."

Phone—
Mayfair 4481.



Commercial Publicity.



TOOGOOD'S



FROZEN EAU DE COLOGNE

and

FROZEN LAVENDER WATER



20/- per dozen.

COUNTER DISPLAY BOXES
AND
SHOW CARDS SUPPLIED.



Customer's name free on 3 dozen.

Telephone :
HOP 4170
(2 lines).

WILLIAM TOOGOOD LTD
77, SOUTHWARK ST
LONDON, S.E.1.

Telegrams :
"TOOGOOD,
BOROH,
LONDON."

The display that pays

Speaking generally the best goods for the window are those which are attractive in appearance, in constant demand, familiar to the buying public, of high quality, profitable, and which appeal to a desirable type of customer.

Euthymol TOOTH PASTE

fulfils every one of these conditions. Both carton and tube are admirably adapted to artistic display. Everyone regularly requires a dentifrice. Euthymol Tooth Paste has been effectively kept before the public for nearly 30 years. It was one of the first proprietaries to assure a really satisfactory profit to the pharmacist. That Euthymol Tooth Paste appeals to the right people is emphasized in the following note from a letter from Mr. W. H. GOY, M.P.S.

"A display of Euthymol Tooth Paste brings the right class of customer into one's pharmacy."

To get the maximum benefit from a window display it is necessary to buy on best terms. A postcard will bring you full particulars.



PARKE, DAVIS & CO.
50-54 Beak Street, LONDON, W.1.

Laboratories - - Hounslow, Middlesex.

DEARBORN

LIMITED

37 Gray's Inn Road, LONDON, W.C.

Toilet Specialities.

	Price per doz. to Retailer.	Selling Price P.A.T.A.
PILENTA SOAP A complexion soap.	10/-	1/-
PROLACTUM For the lips.	10/-	1/-
PARSIDIUM JELLY For wrinkles.	10/-	1/-
ALLACITE of ORANGE A dressing cream. BLOSSOM	22/6	2/6
BORANIUM A hair tonic.	22/6	2/6
SILMERINE Hair curling fluid.	22/6	2/6
CLEMINITE For a face lotion.	22/6	2/6
COLLIANDUM For a face tint.	22/6	2/6
PERGOL A deodorant.	22/6	2/6
STALLAX For a shampoo.	22/6	2/6
JETTALINE For clearing the skin.	31/6	3/6
PHEMINOL A depilatory.	36/-	4/-
TEKKO PASTE Camphor cream.	22/6	2/6
MENNALINE For the eyelashes.	36/-	4/-
MERCOLIZED WAX A face cream.	31/6	3/6
STYMOL For oily complexions and blackheads.	36/-	4/-
BARSYDE Dandruff eradicator.	22/6	2/6
TAMMALITE For grey or faded hair.	22/6	2/6
LIQUID PERGOL To check excessive perspiration locally.	31/6	3/6
BICROLIUM For whitening the hands.	22/6	2/6
COCONOIDS For figure development.	31/6	3/6
HARAPOSA Nut oil shampoo.	22/6	2/6

STOCKED BY ALL WHOLESALE HOUSES

COLONIAL DEPOTS AND AGENCIES:

AUSTRALIA:

ALL WHOLESALE, and
DEARBORN, Ltd., Grace House, Clarence Street, Sydney.

SOUTH AFRICA:

LENNON, Ltd.
SIVE BROS. & KARNOVSKY, Ltd. (Johannesburg):

INDIA:

KEMP & CO., Ltd. (Bombay).
THE INTERNATIONAL TRADING CO., Princess Street (Bombay).
R. MACLURE (Madras).
SMITH, STANISTREET & CO. (Calcutta).
MEHTA BROS. (Calcutta).
JAMNADAS BROS. (Bombay).

NEW ZEALAND:

SHARLAND & CO., Ltd. (Auckland & Wellington).

SOUTH AMERICA:

DEARBORN, Ltd., Calla Salta 264, Buenos Aires.

"Newberys"

FRANCIS NEWBERY & SONS LTD.

COMPLETE RANGE OF

Packed Pharmaceuticals,
Toilet Preparations,
"Own Name" Packed Goods.

SUNDRIES—

Best British Tooth Brushes,
Hair Brushes, and Shaving
Brushes. Mirrors,
Manicure Requisites, etc.FRANCIS NEWBERY
& Sons, Ltd.
LONDON & CARDIFF.

1000 LIVE CHEMISTS WANTED THERE'S 100% PROFIT ON ALZA TOILET SPECIALITIES

Vanishing Cream, Hair Fixer, Henna Shampoo, Toilet Soap,
Solid Brilliantine, Cologne, Emulsified Cocoa-Nut Oil, etc.

Send for Lists of Bargains and Coupon Scheme, to

ALZA MFG. CO. CHORLTON-MANCHESTER.

We help you: sales with specially written Tickets.



SHADEINE

FOR COLOURING GREY HAIR

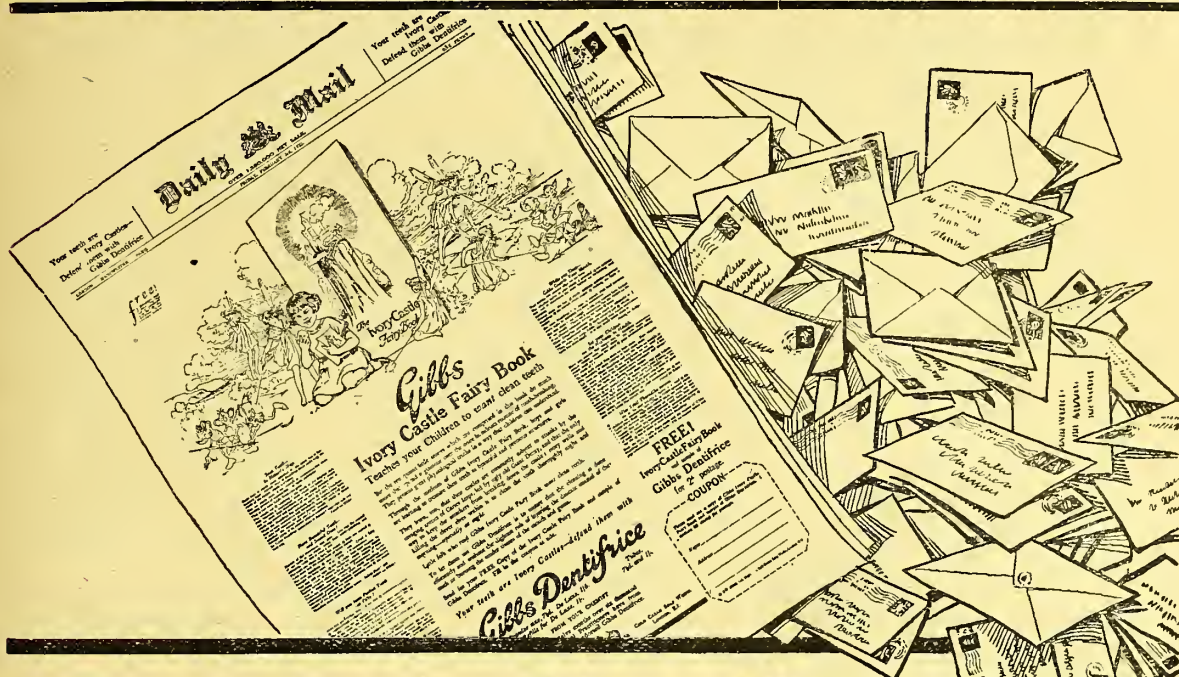
This popular article is largely advertised
and stocked by all Wholesale Houses.
Trial Size 8d., per post 11d. 1/4 size, per post
1/8; 2/6 size, per post 2/11; 3/9 size, per post 4/8;
6d. size, 6/- doz.; 1/4 size 12/- doz.; 2/6 size
24/- doz.; 3/9 size, 36/- doz.

THE SHADEINE CO., 58 WESTBOURNE GROVE, LONDON, W.

SELF-FIXING HERMETIC WASHABLE BOTTLE CAPS

ARE

ELEGANT
—EFFICIENT—
—STRONGEST—
—CHEAPEST—
and BEST.The VISCOSE
Development Co., Ltd.
BROMLEY : : KENT.



28,000 Replies and what they mean to you

THE first "Daily Mail" page of Gibbs advertising campaign appeared on February 3rd, offering the Ivory Castle Fairy Book and a sample of Gibbs Dentifrice in return for a 2d. stamp. Six days later the replies had reached a total of over 28,000. This huge result from ONE advertisement foreshadows a large increase in your potential market this year.

It means that in one week 30,000 more families *spent money* to learn Gibbs message, and *past results prove* that a large percentage of these enquirers become permanent users.

Also the message, "Your teeth are Ivory Castles; defend them with Gibbs Dentifrice," is being conveyed to millions through Gibbs posters and advertisements in the daily, weekly and monthly press.

Every week adds more thousands of probable Gibbs customers.

Here is your opportunity to turn this potential custom into actual trade. Link up your shop with this advertising. Use the window, counter and other display materials with which Gibbs provide you free.

Let your Gibbs stock speak for itself; **put it where it can talk!**

Gibbs Dentifrice

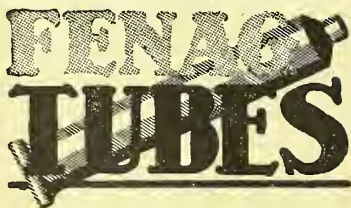
D. & W. GIBBS, LTD. (Dept. S. 16),
City Soap Works, London, E. 1.

Question :*Where is it possible to obtain better value in***SPONGES***than at Marcuson's ?*Answer :**Nowhere.****MARCUSON BROS. & CO.,****SPONGE**IMPORTERS, EXPORTERS, MERCHANTS,
32 MINORIES :: :: LONDON, E.1.

Phone : Avenue 840.

Wires : "Pantalaria, Ald, London."

NO CONNECTION WITH ANY OTHER FIRM.

**Pure
Aluminium**Unaffected by
Alkali or Acid
Contents.*The Most Hygienic Collapsible Tube made
for Tooth Pastes, Pharmaceutical Products, Lanoline,
Cosmetics ; Gums, &c.*ALUMINIUM CONTAINERS FOR SHAVING STICKS. TUBES FOR
TABLETS, BRILLIANTINE, LIP SALVE, &c.

TUBE FILLING AND CLOSING MACHINES.

Stokes & Co. 10 New Broad St., London, E.C.2.
Telephone : London Wall 3212 & 6491.**GREAT SAVING IN PURCHASING**Phone :
Museum
4209.**I. ISAACS & CO.'s**Telegrams :
"Isaglasbot,
Kincross,
London."

WELL-KNOWN

DISPENSING BOTTLES

VIALS AND BLUE POISONS.

GREATLY REDUCED PRICES.*Sent Carriage Paid.*THE NORTH LONDON GLASS BOTTLE WORKS.
Head Office—106 Midland Road, LONDON, N.W.1.
Stores—Midland Railway Goods Depot, St. Pancras. Etab. 100 years.**THE EVAN WILLIAMS'
EMULSIFIED COCOANUT OIL SHAMPOOS***in liquid form (2 sizes)**in powder form (packets)*

They are well up to the Evan Williams' standard of production, sell freely, and give a handsome profit.

*Write for "The Shampoo Salesman," which gives full details of all our Preparations.***THE EVAN WILLIAMS CO., LTD., 18 & 18a Ogle Street, LONDON, W.1.***The largest Shampoo Specialists in the world.*

Millions of People

are reading and talking about the **PRO-PHY-LAC-TIC** Tooth Brush in the **YELLOW BOX**

To an ever-increasing public our convincing advertising is driving home in the monthly, weekly, and daily Press the merits of the Pro-phy-lac-tic Tooth Brush in the sanitary **YELLOW BOX**.

Let the public see the Pro-phy-lac-tic in your windows—and thus profit by this advertising.

Pro-phy-lac-tic Tooth Brush

GENUINE only in the **YELLOW BOX**

(Manufactured by the Florence Mfg. Co.,
Florence, U.S.A.)

In three sizes—adult's, youth's, and child's; in three textures of bristles—hard, medium, or soft; one quality only—each in its individual **YELLOW BOX**, with hook for hanging.

Price to the Public, **2/6**. To the Retailer,
A Full Trade Profit.

Sold through the Wholesale Houses Only.

Wm. E. PECK & CO., Inc.,
31 Bartholomew Close, London, E.C.1.





You can depend on steady sales

THE demand for the Sorbo Sponge is now thoroughly established. Week by week the Sorbo Sponge brings you regular profits. And there is endless opportunity for doing fresh business in this profitable line.

Every single person who enters your shop is a possible customer for a Sorbo Sponge.

Just indicate its unique qualities, the very low price, durability, absorbency and softness. Few can resist the wonderful economy of a Sorbo Sponge. If they use a sponge, they need a Sorbo Sponge.

And remember, there's a handsome profit of 33 1/3% for you on every one you sell.

Sorbo sponge

THE MOST ABSORBENT RUBBER SPONGE

Retail Prices: No. 1, 1/3; No. 2, 2/-; No. 3, 3/-; No. 4, 5/-. Bath sizes—No. 4R, 7/6; No. 5, 10/6.

SORBO RUBBER-SPONGE PRODUCTS, LTD.
24 WALBROOK, LONDON, E.C.4

Telephone: City 9372. Telegrams: "Osorbeau London."

HONEYCOMB
and
BROWN
TURKEY
in
ORIGINAL
CASES.

WHITE
TURKEY
and
ELEPHANTS'
EARS
in
ORIGINAL
BALES
in
STOCK.

WHEN REQUIRING SPONGES

do not fail to ask

CHIAPAS

to quote you prices.

CHIAPAS are
ACTUAL IMPORTERS
and thus save you
Intermediate Profits

Write for Illustrated Brochure
on *Sponge Fishing* to:
Soc. Anon. **CHIAPAS**
32 Queen Victoria Street
LONDON - E.C.4

Telep.: City 5824.

No connection with any other firms.

TUSKOID

Superfine Cut—Non-Inflammable.

Fine Tooth Combs.

8/- 10/- 12/- per dozen.

Glass-fronted Showcase free with 3 dozen Combs,
£1 10 0

MAZEPPA ENGLISH MADE TOOTH BRUSHES

Transparent. Three Colours.

4 Row; Best Bristles 11/6 doz.
3 Row; Children's... .. 8/- doz.

GENUINE IVORY FOLDING POCKET MANICURES

Containing Nail File, Toothpick and Cuticle Spoon.
8/- doz. carded.

BONE NAIL FILES

Assorted sizes. 1 doz. on card. 3/- per card.

H. J. LEE & CO.
Osborne Works, LANCASTER.

BIDWELLS

Factories: AXMINSTER, DEVON.

London—6 East India Avenue, E.C. 3.

WE OFFER



Half-dozen each of 9 patterns, £2 9 6.
Sell readily for £4 19 0.

**REDUCED
PRICE**



3/3 PER DOZEN.



**MIRROR
NAIL STONES**

IN THE ORIGINAL
HINGED ALUMINIUM BOXES
IN SHOW BOXES OF 1 DOZEN.

Stocked by ALL LEADING WHOLESALERS.

MADE ONLY BY
SOLPORT BROTHERS, Ltd.
184-190 Goswell Road,
LONDON - E.C. 1

NOTICE !!!

An Advertising Campaign for



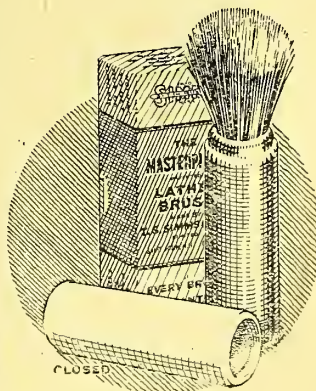
"MASTERPIECE"
Patent Travelling
**SHAVING
BRUSHES**

is commencing
forthwith in

PUNCH, TRUTH, JOHN
O' LONDON'S WEEKLY,
LONDON MAIL, AND
LONDON OPINION.

These unique and beautiful
brushes appeal to every man,
even if he has an ordinary
brush for home use.

Retail—7/6, 12/6, 15/6, 17/6
Each in box. Each guaranteed.
Discount 33 $\frac{1}{3}$ %



Don't miss
Business—

**ORDER A
SMALL
STOCK
TODAY.**

W. H. CALNAN & Co., Ltd.
30-32 LUDGATE HILL, E.C. 4.

You are missing Sales!

IF YOU DO NOT STOCK

Peldo
(Patent applied for)

¶ WE receive dozens of orders daily from private individuals who inform us that they cannot obtain it from their Local Chemist.

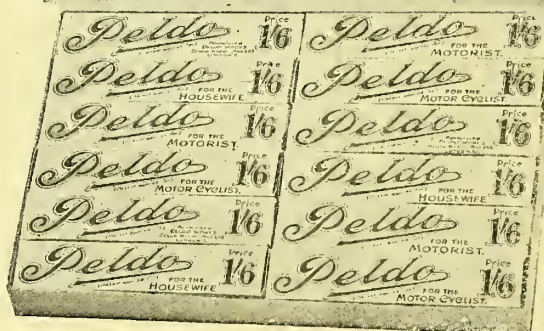
¶ "PELDO" is stocked by all the leading Patent Houses, or can be obtained direct.

RETAIL PRICE

1/6

EACH NET
(P.A.T.A.)

Attractive Window Display material and Showcards supplied. Sample Tubes supplied gratis in proportion to quantity ordered.



WHOLESALE
PRICE

13/6

PER DOZEN

In order to introduce "Peldo" we are offering a special bonus for a guaranteed window display of not less than 14 days as follows:

On Orders of 1 gross a bonus of 18 full-size tubes
On Orders of 6 dozen a bonus of 8 full-size tubes
On Orders of 3 dozen a bonus of 3 full-size tubes

Further particulars on application to

C. R. HARKER, STAGG & MORGAN, LTD.

Devon Wharf and Bell Wharf, EMMOTT STREET, MILE END, E. 1.

Another "MOORLAND" Success—with big money behind it



PACIFIC PAIN BALM is a new analgesic cream which is non-greasy. Our Press advertising campaign has commenced, and the demand is very steadily growing.

On the P.A.T.A., it retails at 1/3 per jar, costing you 11/- per dozen net.

Chemists stocking it are quickly repeating.

No hard rubbing and non-greasy are two unique features of Pacific Pain Balm, and you know as well as us the hundred-and-one things it will promptly relieve. If you would like to try a jar, just send us a postcard.

You can obtain supplies either direct from us or through your regular patent house.

Pacific Pain Balm has the three essentials for a successful line—a good article, a good seller, and a good profit.

W.B. CARTWRIGHT LTD.
RAWDON LEEDS
Australia. 287-290 CASTLEREAGH ST SYDNEY
 520, FLINDERS LANE, MELBOURNE.
New Zealand. 101, HEREFORD ST. CHRISTCHURCH
 CORNER ALBERT & DURHAM ST AUCKLAND

LONDON :
 37 RED LION ST.,
 HIGH HOLBORN.
 Tele : Chancery 7416.

GLASGOW :
 BATH CHAMBERS,
 65 BATH STREET.
 Tele. : Douglas 459.

4d. on every 1/3 jar is yours !

ALKIA SALTRATES^{AND} REUDEL BATH SALTRATES

The extreme height of perfection in salines. The best that can be produced regardless of cost. (3/3 P.A.T.A.).

The best of all bath preparations, either for medicinal or general toilet use. (2/- and 3/3 double size P.A.T.A.).

They never stay long on your shelves, because they please the customer EVERY TIME.

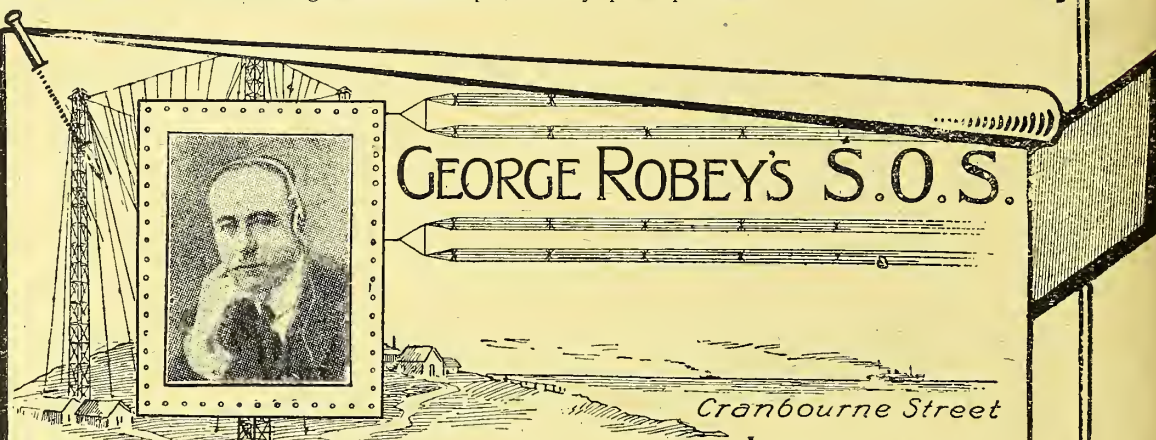
Never Let Your Stock Run Too Low.

NO STOCK — NO SALES.

A LETTER THAT EVERY CHEMIST SHOULD READ.

**"Do I still have to travel to Continental Spas?
No, NO,—n'n'n' NO. I take my cure at home,"**

Says **GEORGE ROBEY**, the inimitable comedian, who like Sir Harry Lauder and numerous others amongst the really great stars of the theatrical firmament, has joined the long list of prominent men and women who have used our Saltrates with results so pleasing that they have kindly written us in grateful acknowledgement of the wonderful benefits derived. No other preparations in the world have ever received such endorsement. The following letter is here reproduced by special permission. SALTRATES LTD.



**Messrs. Saltrates Ltd.,
Euston Buildings,
London. N.W.1.**

LONDON.W

March 8th. 1920.

Dear Sir:- That was a good turn you did me in donating the supplies of Alkia Saltrates and Reudel Bath Saltrates that I ordered for the hospital. The favour is appreciated by me as much as the Saltrates are appreciated by all who use them, myself of course included. No one can accord anything higher praise than that.

Personally, I never could be sure of remaining in perfect bodily health and comfort without always having both Alkia and Reudel right where they are handy when wanted. I needed these Saltrates of yours long before commencing to use them, years ago. "Oh! How can I tell you my feelings" in those days. Now, I have no more internal or external aches or pains, no more tired feet or muscular strains. Do I still travel to Continental Spas? No, **NO - n'n'n' NO!** I take my cure at home.

I realise that every manufacturer appreciates the testimony he knows his products deserve, and it gives me pleasure to acknowledge the benefits derived in my own case. If you consider that my recommendation may be useful in helping others help themselves by using Alkia or Reudel, I have no objection to your quoting this letter.

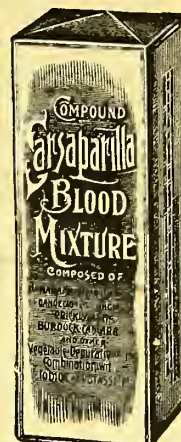
Yours gratefully

George Robey

SARSAPARILLA BLOOD MIXTURE

Composed of Jamaica Sarsaparilla, Dandelion, Stillingia, Prickly Ash, Burdock, Cascara Sagrada, etc., in combination with Potassium Iodide.

Styles A and B.—In medical tinted direct squares, cased.
10 oz. **14/3**; 20 oz. **27/6** per doz.



STYLE A.

SEASONABLE "OWN NAME" SPECIALITIES

SHOWCARDS SUPPLIED.

BLOOD PURIFIER

A combination of Jamaica Sarsaparilla, Cascara Sagrada and Potassium Iodide.

In white flint mexican flats, cased.

Styles A and C.—(Stamped).

4 oz., **10/9**; 8 oz., **21/6** per doz.

Style B.—Blood Mixture (Unstamped).

4 oz., **7/9**; 8 oz., **15/6** per doz.

Style "Script."—In white flint flats, capped with skin.

Blood Purifier (Stamped)—4 oz., **10/3**; 6 oz., **17/6**; 8 oz., **20/6** per doz.

Blood Mixture (Unstamped)—4 oz., **7/3**; 6 oz., **11/6**; 8 oz., **14/6** per doz.

Special Quotations for Quantities.

SOUTHALL BROS. & BARCLAY, Ltd.
Packed Goods Specialists - Birmingham.



STYLE A.

Spun Ointments have a World-wide Reputation

Manufactured in Pure Aluminium Pans.

THE EVER-INCREASING SALES OF SPUN OINTMENTS

in all parts of the globe leave no manner of doubt that in this line we stand pre-eminent, notwithstanding the ever-increasing competition.

Let us quote you our latest prices, either for bulk or packed in beautifully decorated tins with display showcard. Customers' own name and address on special design tins for a minimum quantity of 25 gross assorted.

If you have a special Ointment of your own let us manufacture it for you and have it spun, and see what a difference it makes.

We pack everything necessary to a chemist's business. Send for our Illustrated Catalogue.

ROBERT BLACKIE, SHEN WORKS, TOWER BRIDGE ROAD,
LONDON, S.E. 1.

Telephone: HOP 2415.

Telegrams: "USHENSPUNA LONDON."

HIGHEST GRADE AUSTRALIAN SANDALWOOD OIL

GUARANTEED NOT UNDER

90%

OPTICAL ACTIVITY
-6° to -10°

Recent Analysis:

Alcohols (as Santalol)	91.3 %
Ester Santalol	... 3.2 %

Accepted by Australian
Medical authorities as equal
to B.P. Oil for medicinal
purposes.

Distilled by

PLAIMAR LTD., PERTH,
West Australia.

*Agents for United Kingdom
and Europe:*

PLAISTOWE & CO., LTD.
King's Cross, London, N.1

Better
and more
Regular
PROFITS
if you use



PREEMO

CONCENTRATED
ESSENCES AND
COMPOUNDS

for making up

Toilet Preparations, Creams, Pomades, etc.

PREEMO ESSENCES impart to all Toilet Preparations in which they are used a delightful charm and fragrance quite of their own. Your customers will be delighted with them and will return again and again for "another bottle like the last." They are highly concentrated, and, therefore, very economical, and being ready for immediate use they require no filtering, mixing or blending beforehand. Used by the leading chemists throughout the world.

PREEMO CONCENTRÉ & ESSENTIAL OIL CO.

63 High Holborn, W.C. 1. Telephone: Chancery 8095.
AND AT PARIS AND NEW YORK.

When a customer asks simply for Cascara,
sell him the 'TABLOID' Product

TRADE
MARK

'TABLOID' BRAND

Cascara Sagrada

is reliable and uniform in its action. Every
customer must note its marked superiority.

'TABLOID' CASCARA SAGRADA, gr. 2. In bottles of 25 and 100, at 7/- and 18/- per doz.
(subject). Also in the following strengths:—Gr. 1, gr. 3, gr. 4, gr. 5, 0.15 gm. and 0.25 gm.



BURROUGHS WELLCOME & CO., LONDON

NEW YORK MONTREAL SYDNEY CAPE TOWN
MILAN SHANGHAI BUENOS AIRES BOMBAY

THE 'TABLOID' TRADE MARK IN FRANCE APOLOGY

Translation:

LABORATOIRE DE BIO-CHIMIE APPLIQUÉE

21, Rue Théodore-de-Banville, PARIS (xvii)

J. LEGRAND, Pharmacist.

Telegraphic Address—LOBICA-PARIS

Tel.—WAGRAM 30-55

PARIS, 7th February, 1922

We, LABORATOIRE DE BIO-CHIMIE APPLIQUÉE, present to BURROUGHS WELLCOME & Co. our apologies for having infringed their rights of trade mark by using the word 'Tabloid' in reference to goods which are not of their manufacture.

By the present we undertake not to distribute any more price lists, advertisements, circulars, notices, etc., in which the title 'Tabloid' or 'Tabloids' is employed when their products are not referred to, and we engage also to abstain in future from infringing their rights of trade mark. We consent to the publication of this letter.

We are making a single reservation regarding the boxes and prospectuses which are now in circulation and which it is not in our power to withdraw.

(sd) JULES LEGRAND.

'TABLOID' marks the work of Burroughs Wellcome & Co. We prosecute offenders rigorously in the interests of prescribers, dispensers, patients and ourselves.

We invite your enquiries
for—

OILS

including

**MINERAL & LUBRICATING
OILS OF ALL KINDS.**

ARACHIS NUT OIL
CASTOR OIL
COTTON OIL
COD LIVER OIL
COLZA OIL
LINSEED OIL
NEATSFOOT OIL
OLIVE OIL
PARAFFIN LIQUIDUM
PETROLEUM JELLY
ROSIN
SPERM OIL
SOYA BEAN OIL
TURPENTINE
WHITE OILS

FINEST B.P.
CONTINENTAL & ENGLISH B.P.
TECHNICAL.
EDIBLE REFINED.
FINEST NORWEGIAN NON-
FREEZING.
GENUINE CATTLE QUALITY.
GENUINE & BURNING
QUALITIES.
GENUINE BOILED. PALE-
BOILED & RAW.
FINEST ACIDLESS.
EDIBLE & PHARMACEUTICAL
B.P. INDUSTRIAL.
'880 & '870 B.P.
WHITE & YELLOW B.P.
TECHNICAL RED & GREEN.
ALL GRADES, FRENCH &
AMERICAN.
FINEST PALE COLOURED.
FINEST EDIBLE.
GENUINE AMERICAN SPIRITS
AND SUBSTITUTES.
TECHNICAL QUALITIES.

JAMES ARNOTT & SONS, LTD.,

Head Office : 47 PILGRIM STREET, NEWCASTLE-ON-TYNE.

'IALINE' DISINFECTANTS

Also
FLUIDS

containing
10 — 80 %
Tar Acids.

High Co-efficient
FLUIDS

up to 18—20
Rideal-Walker
Method.

**LYSOL
SHEEP
DIP**

Approved by the
Ministry of Agricul-
ture for Sheep Sc.

**FOOT & MOUTH
DISEASE**

ORDERS FOR
DISINFECTANTS

EXECUTED PROMPTLY
FROM STOCK.

Apply to Actual Manufacturers—
BURT, BOULTON & HAYWOOD, Ltd.
Salisbury House, London Wall, E.C. 2.

Telegrams : "Burboul, Ave, London."
Cables : "Burboul London."
Codes :
ABC (5th Edit.); Lieber's; Western Union; Bentley's.

CARBOLIC
POWDERS
CREOSOTE
POWDERS
CO-EFFICIENT
POWDERS
PINE OIL
POWDERS
PINE OIL
FLUIDS
PINE OIL
BLOCKS
NAPHTHALENE
" BALLS
" CANDLES
" TABLETS
" FLAKE
" BLOCKS
" POWDER
LIQUID
SANITARY SOAP
WOOD
PRESERVATIVE
ETC. ETC.



A WEEKLY JOURNAL OF PHARMACY AND OF THE CHEMICAL AND DRUG TRADES.

THE CHEMIST AND DRUGGIST is in circulation and reputation the leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in the Overseas Dominions.

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Wills

MR. FREDERICK WILLIAM BRIDGER, chemist and druggist, 28B Seaside, Eastbourne, who died on January 26, left estate of the gross value of £6,557 2s. 8d., with net personality £5,039 16s. 10d.

MR. FRANCIS ALFRED ROGERS, chemist and druggist, 4L Oxford and Cambridge Mansions, Marylebone, London, N.W., who died December 9, left estate of the gross value of £10,446 12s. 10d., with net personality £2,033 14s.

MR. HERBERT VINCENT DOWN, 35 Riggindale Road, Streatham, London, S.W., and of Down Bros., Ltd., surgical-instrument makers, St. Thomas Street, Southwark, who died on December 13, left £19,182 17s. 1d. He gives £25 and 200 ordinary shares in Down Bros., Ltd., to each of the executors, £25 and the income from 1,000 shares to his sister, Elizabeth Ann Down, 300 shares to each of his sisters, Georgiana Emily Drew and Laura Sophia Butler, and the residue between his three daughters, Margaret Naomi, Vera Emily, and Doris Lilian.

English and Welsh News

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

Safeguarding of Industries Act

The Board of Trade have received formal notices of complaint under Section 1, Sub-section 5, that the following articles have been improperly excluded from the lists of articles chargeable with duty under Part I. of the Act: Barium peroxide of 80 per cent. and over; anhydrous sulphurous acid. The complaint regarding barium peroxide will be heard by the Referee on Saturday, March 18, at 10 a.m., at the offices of the Board in Great George Street, Westminster

London Chemists' Costing System

The following are among the alterations and additions in the March issue of the London Chemists' Costing System:

Acetamidosalol, 1s. 5d. dr.; ac. benzoic. synth., 6d. oz.; ammon. brom., 3d. oz.; balsam. Peru., 4d. dr.; balsam. sulph., 5d. oz.; balsam. tolu., 6d. oz.; barii sulphid., 6d. oz.; caffein sodio-salicyl., 3d. dr.; chrysarobin., 4d. dr.; elix. acetomorph., 8d. oz.; ext. hydrast. liq., 1s. 4d. dr.; ferri et quin. cit., 4d. dr.; liq. ammon., 2d. oz.; lotio ac. carbol. (1-20), 5d. 4 oz.; troch. bis. et sodæ, 6d. oz.; xylol rect., 3d. oz.

Birmingham

The pharmacy of T. L. Reeve & Co., chemists, New Street, is disinfected daily by means of a proprietary disinfectant.

An effective advertisement for advancing the claims of a soap appears in the window of the New Street branch of Needhams, Ltd.

The announcement of the sale of the manuscript, "John Inglesant," written by the late Mr. J. H. Shorthouse, appears in Sotheby's catalogue for March 27-29.

Sir Robert Bird, Bt., has been heartily congratulated on succeeding to his late father's seat in Parliament, by the substantial majority of 2,991, in the West Wolverhampton election on March 7.

Liverpool

Pharmacists who deal in photographic materials are gratified at the demand which has arisen at the first hint of spring.

Mr. W. J. Tristram (Burgess, Whitechapel) has an effective window-display, of which Euthymol preparations form the basis.

Mr. F. Pilkington Sargeant, Vice-President of the Pharmaceutical Society, will speak on the Benevolent Fund at the benefit concert to be held at the Adelphi Hotel on April 5.

Ayrton, Saunders & Co., Ltd., have arranged to reopen, on April 3, their patent-medicine department, which, owing to want of space in their temporary premises, has been discontinued since the fire. Messrs. Ayrton expect to be fully installed in their new building in Hanover Street by the date mentioned.

The "Naboth's Vineyard" article (*C. & D.*, March 4, p. 59) has evoked expressions of support from quarters in which the personnel of the promoters of the Liverpool British Pharmaceutical Conference and the success of that and the Scarborough meeting are recalled. "Let us rather widen than narrow the Conference" was a remark which elicited approval.

A gentleman who felt certain twinges while at dinner in a leading hotel, left the table, entered an adjacent pharmacy, described his symptoms, and asked for a draught. Just as the mixture was raised to the lips the pharmacist remarked, "You must not take any more alcohol after this draught." Whereupon the customer replaced the untasted portion, paid up, and returned to the hotel.

Referring to the example of Glasgow (*C. & D.*, March 4, p. 45) in the matter of soaps, it is pleasing to note that Merseyside pharmacists are recovering much of the toilet-

soap trade by adhering to British manufactures and occasionally presenting approved French lines. Our correspondent, who lately interviewed a well-known manufacturer, was shown how largely some Continental soaps are loaded so as to impart a deceptive surface finish.

The recently formed Liverpool Pharmacists' Club has elected Mr. H. Humphreys Jones Hon. President, Mr. W. J. Tristram (Burgess, Whitechapel) President, and Mr. F. A. Boggiano secretary. Old boys of the Liverpool School of Pharmacy formed the nucleus of the club, which will hold an inaugural whist-drive at the temporary headquarters, the Clarion Café, Lord Street, on March 16 at 7 p.m. The club is in no sense in opposition to the Liverpool Chemists' Association, of which the promoters are members.

Nottingham

In the course of a lecture on the anodic corrosion of bismuth, given before the local section of the Society of Chemical Industry by Professors Prideaux and Hewis on March 1, some interesting information regarding bismuth compounds was disclosed.

At a meeting of the Derbyshire and Lincolnshire branch of the Federation of British Industries, held at Nottingham recently, the need for relief from the heavy burdens of Imperial and local taxation was urged, and a resolution was adopted regarding economies, impressing upon the Government that the vital need of the moment is that national expenditure, except for services and supply, shall be reduced to the lowest possible margin, in order that industry may turn its attention to the reopening of markets and the revival of employment.

Sheffield

Mr. J. Gilbert Jackson is again a candidate for the Executive of the Retail Pharmacists' Union.

The position in the East End of the city has become acute, as Sheffield has about 60,000 unemployed.

The older chemists gave Mr. John Humphrey a hearty welcome when he recently had a run round his youthful haunts.

Mr. C. O. Morrison, who is well known to local pharmacists, is at present engaged on work in connection with the dye industry in New York. Mr. Morrison passed the Major examination in 1885.

As the expenses of the Pharmaceutical Committee amounted to slightly less than 1.25 per cent. for the latest period for which payment is being made, a pleasant surprise has fallen to the lot of chemists who have sent in accounts.

Miscellaneous

FORTHCOMING PAGEANT.—The Clapham (London) Chamber of Commerce is organising a pageant of medicine, to take place on Whit Monday, June 5, in aid of a local hospital. The route to be traversed is six miles in length, and it has been suggested that pharmacy should be represented on one or more of the lorries, of which there is an ample supply available. Offers of help by way of loan, personal service, or otherwise will be received by Mr. Alfred Thomas, Ph.C., F.C.S., 57 Old Town, Clapham, S.W. 4.

THEFT CHARGES.—At Church Police Court, on March 2, James W. Marsden and Edward Connor were remanded on a charge of stealing five barrels of tallow, value £37 10s., the property of H. Pilkington & Co., soap manufacturers, Bridge Street.—At Tower Bridge Police Court, London, on March 4, Albert Wighton, traveller, was sentenced to four months' imprisonment, and four other men, named Wellington, Kell, Hall, and Cronin, to one month's imprisonment each, for being concerned in stealing and receiving sweets, value £70, the property of James Pascall, Ltd., manufacturing confectioners, Blackfriars Road, S.E. 1.

LONDON CHEMISTS' GOLFING SOCIETY.—At the recent annual meeting of the London Chemists' Golfing Society the following office-bearers were elected: *President*, Mr. W. B. Trick, J.P.; *Vice-Presidents*, Messrs. H. R. Arnold, A. Barritt, M. Carmichael, W. Duncan, C. A.

Hill, J. Jones, T. Edward Lescher, C. H. J. Tanner, E. Sanger, W. P. Want, Dr. R. Hanbury; *Captain*, Mr. H. W. Bartlett; *Vice-Captain*, Mr. C. A. Macdonald; *Secretary and Treasurer*, Mr. G. F. Deeth (40 Cleveland Park Avenue, Walthamstow, E. 17); *Auditors*, Messrs. F. A. Bell, D. J. Parry; *Committee*, Messrs. A. Barnett, W. Boyack, A. Boyes, J. Forbes, W. Main, W. J. Pinchen, J. W. Quibell, P. Trick, and J. Watson.

IN THE COURTS.—At Durham Assizes, on March 3, Edwin Ernest Willis, medical practitioner, was sentenced to twelve months' imprisonment in the second division. The case for the Crown was that, after being prevented from carrying out a serious operation on a woman because he was drunk, Willis returned the same day and performed the operation in an unskilful manner, thereby causing her death.—At the Old Bailey, London, on March 4, Edmund Hugh Tunbridge, warehouseman, was sentenced to death for the murder of Margaret Evans in circumstances already reported (*C. & D.*, February 18, p. 39).—At Mansion House Police Court, on March 8, Harry Day, seaman, was fined £220 10s. for smuggling 10 lb. of saccharin. The captain of Day's vessel said there appeared to be a "ring" in this country which tempted seamen to smuggle goods.

Irish News

Pharmaceutical Society of Ireland

The latest dates for lodging applications for the forthcoming examinations are as follows: for the Preliminary examination, March 23; for the Pharmaceutical Licence and Registered Druggist examinations, March 28; for the Pharmaceutical Assistant examination, April 3. Applications should be received by the Registrar not later than 11 a.m. on the respective dates. Consequent on Good Friday falling on April 14, the Pharmaceutical Licence examination will commence on Tuesday, April 11.

Dangerous Drugs Act

The "London Gazette," March 7, contains a number of Orders in Council regarding modifications in various Acts of Parliament necessitated by the Government of Ireland Act, 1920. Among the Acts referred to is the Dangerous Drugs Act, 1920, in which "references to His Majesty and Orders in Council shall, in the application of those Acts to Northern Ireland, be construed as references to the Lord-Lieutenant and Orders of the Lord-Lieutenant in Council respectively."

Brevities

Mr. F. T. Smith, R.D., J.P., Antrim, is having his premises remodelled on handsome lines.

At a meeting of the Lurgan Board of Guardians on March 2 it was stated that the Ministry of Home Affairs of Northern Ireland had directed that the lin. terebinth. which had been unfavourably reported upon by the analyst be returned to the contractor, who should be asked to supply standard quality.

Belfast

Down District Asylum Committee invite tenders for six months from April 1, 1922, for the supply of medicines. Tenders should be lodged with the Resident Medical Superintendent, Downpatrick, before March 17.

Mr. J. C. Boyle, Ph.C., Belfast, has disposed of his York Road pharmacy to Mr. J. Maybin, late of Busby's, Ltd., Duncairn Gardens, and has opened a new pharmacy at 37 Antrim Road. Mr. C. Abernethy, R.D., 234 Albert Bridge Road, Belfast, has opened a Medical Hall in the adjoining premises.

At the Recorder's Court, Samuel Gibson, wholesale druggist, King Street, Belfast, sued the Great Northern Railway (Ireland) to recover £1 14s. 1d. for breach of their contract to carry safely plaintiff's goods from Belfast to Lisburn. Plaintiff's case was that articles valued at £1 14s. 1d. had been lost in transit. Judge Thompson gave a decree for the amount.

At the Police Court on March 1 Samuel Hill, R.D., York Street, was summoned by the police for unlawfully

selling pills containing savin oil without having any inscription on the box or wrapper, and also without his name and address. A girl who purchased the pills gave evidence as to going into a shop in York Street, but said that she was unaware as to whose shop she made the purchase in. Mr. J. H. Totten, public analyst, said that the pills contained starch, ground ginger, and a quantity of savin oil. The Bench, by a majority, believed that the girl did not specify the shop as Hill's, and dismissed the case, refusing the district inspector's request that the girl should be re-examined.

Scottish News

Brevities

A deposit of manganese ore has been discovered near Inverness.

While working at the premises of T. & H. Smith, Ltd., Wheatfield Road, Edinburgh, on March 3, a painter named Barclay fell and fractured his skull. He died shortly afterwards.

Mr. S. Lawrence, chemist and druggist (Lawrence & Shepherd, chemists, Oban), has recently returned from a business tour during which he visited several Scottish and English cities.

The first of this season's competitions of the Edinburgh Chemists' Golf Club will be played over Prestonfield course (enter from Priestfield Road, *via* East Mayfield) on March 22, starting about 2 p.m. Those taking part in this competition are requested to notify the secretary (Mr. Jas. Finlay, 302 Morningside Road) at least four days previous to that date. There has been a difficulty in securing greens this season, but the fixture-card will be sent out shortly.

Retail Pharmacists' Union

Birmingham.—The Retail Pharmacists' Union (Birmingham branch) held a meeting of Birmingham employer pharmacists on March 1, at which rules for the branch were approved. These will shortly be issued to members. The following committee was elected: Messrs. Atkinson, Bell, Buckingham, Francis, Knowles, Mann, Marshall, Poole, Rigg, Shakespear, Thompson, and Wakefield. Messrs. J. W. Atkinson and F. Smith were appointed as delegates to attend the Conference in London on March 29. Mr. H. O. Lloyd having signified his inability to continue his position on the R.P.U. Executive on account of his other public duties and business ties, Mr. H. H. Marshall was nominated as a candidate for the West Midland area at the forthcoming election. The Committee met on March 6 at the Chamber of Commerce, and the following officers were appointed: *Chairman*, Mr. J. W. Atkinson; *Vice-Chairman*, Mr. H. H. Marshall; *Treasurer*, Councillor J. Poole; *Secretary*, Mr. F. Smith.

Southampton.—At a meeting of the Southampton branch, No. 17, Mr. H. Wilson (chairman) presiding, Mr. H. Martin, of Christchurch, as representing the South-Western area, gave an address on the work of the Executive. A vote of confidence in Mr. Martin (Christchurch), candidate at the forthcoming election of the Executive, was passed.

Wolverhampton.—The annual meeting of the Wolverhampton branch, No. 25, was held on March 1. The annual report and statement of accounts were adopted. The following officers were elected: *Chairman*, Mr. C. M. Warner; *Vice-Chairman*, Mr. H. Oakley; *Treasurer*, Mr. H. L. Warner; *Secretary*, Mr. W. R. Dunn; *Committee*, Messrs. E. H. Bowdlers, A. E. Marlow, and R. J. T. Hagyard. A discussion on unprofitable proprietaries took place. Mr. H. Oakley was afterwards appointed as delegate to the forthcoming R.P.U. Conference. It was unanimously decided that Mr. H. Tranmer, Smethwick, be nominated as a candidate for the R.P.U. Executive Committee election.

Legal Reports

Difference in Weight.—In the Mayor's and City of London Court, on March 3, before Judge Jackson, Rubeck Thew & Co., 16 Mincing Lane, E.C., sued Janaway & Co., manufacturers, 123 Calvert Road, Greenwich, for £9 6s. for a barrel of brown oleine supplied, it being a mixture of oil and acid and used for making metal polish. Mr. H. Strouts, plaintiffs' solicitor, said that the barrels of oleine ran from about 3 cwt. to 4 cwt. When the one in dispute was delivered to the defendants it weighed 3 cwt. 3 qr. 8 lb. On a previous occasion they had one which weighed 3 cwt. 1 qr. 14 lb. Defendants returned the barrel to plaintiffs, who weighed it and found it as stated. Plaintiffs' salesman said that they first fixed the price at 60s. per cwt., less 2½ per cent. discount, free delivery to defendants' works. Then the price was reduced to 58s. 6d. When defendants complained about the weight they took the matter up with their works and found that the weight was quite correct. The railway company confirmed them. Judge Jackson said he was against the defendants, who must have made a mistake. There were three weighings against the defendants' weights. There must be judgment for the plaintiffs, with costs.

Calcined Magnesia.—At Central Police Court, Glasgow, on March 3, Mr. Daniel Thomson, chemist, 324 Rutherglen Road, Glasgow, was charged under the Sale of Food and Drugs Acts with selling 2 oz. of calcined magnesia not of the nature, substance, and quality demanded. The sample, it was alleged, contained 2.66 per cent. of lime and lost on ignition 2.50 per cent. of its weight, whereas the British Pharmacopœia prescribes that genuine calcined magnesia should yield only the slightest reaction for lime and should lose not more than 1 per cent. of its weight when ignited. The prosecution was conducted by Mr. George Smith, on behalf of the Medical Officer of Health, and Mr. Thomson was defended by Mr. David M. McCracken, instructed by the Scottish Pharmaceutical Federation. Evidence of purchase was given, the sample being divided into three parts, each being placed in a paper bag. One sample was analysed by Mr. Harris, the public analyst for Glasgow, on behalf of the prosecutor, the sample left with defendant was analysed by Mr. Clark, public analyst for Lanarkshire, etc., and the third portion was sent to Somerset House. The three analyses were as follows in percentages:

	HARRIS	CLARK	GOVT.
	%	%	%
Magnesia	94.20	85.50	83.41
Lime	2.66	1.50	1.30
Oxide of iron and alumina...	trace	trace	0.13
Sulphuric acid	0.64	0.60	0.51
Carbonic acid	trace	6.60	7.62
Water	2.50	5.80	7.03
	100.00	100.00	100.00

Loss on heating	2.50	12.40	14.65
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In cross-examination, the inspectors who obtained the samples said that they knew nothing about the nature of calcined magnesia, and that they received no special instructions as to how the samples were to be preserved. In his certificate of analysis Mr. Harris stated that no change had taken place in the sample which would interfere with the analysis. In cross-examination the analyst admitted that calcined magnesia when exposed to the air absorbed impurities and undergoes change, and that it is improper to keep it in a paper bag. In further cross-examination he admitted that the certificate did not properly state that the magnesia had been submitted to the test prescribed in the Pharmacopœia. In his evidence, Mr. Clark stated that he had made experiments to ascertain the percentages of increase in weight of small quantities of magnesia, freshly calcined, after different periods of exposure to the atmosphere, with the following results:

	%		%
Half-hour	1.10	Three hours	1.82
One hour	1.32	Three and a half-hours	1.84
One and a half-hours	1.42	Four hours	1.94
Two hours	1.56	Twenty hours	5.4

The magistrate dismissed the complaint and ordered the complainer to pay the expense of the Government analysis. It is the duty of the complainer, he said, to take reasonable precautions to secure that the sample reached the analyst in the same state as that in which it was purchased, and this not having been done in the present case it was impossible that a conviction should follow.

Winox and Vinox.—Mr. Justice Astbury in the Chancery Division, on March 16, heard an application by Winox, Ltd., Kew Foot Road, Richmond, manufacturers of various tonic and medicated preparations registered under the trade-mark Winox, for an injunction against Mr. Sydney Benson, trading as the General Chemical Co., 179 Aldersgate Street, London, E.C., restraining the defendant from using the word "Vinox" in connection with the sale of any preparation of meat and malt wine without clearly distinguishing it from the wine manufactured by the plaintiffs. The defendant, who appeared in person, pleaded that a non-alcoholic preparation of Liebig's meat and malt wine was produced about 1915-16 as a war-time article of consumption. "To distinguish this as one of the firm's products, the letters 'ox' were added to the abbreviation 'vin,' from the Latin word 'vinum,' and the preparation given the title 'Vinox.'" The abbreviation "vin" is in daily use by medical men and chemists to describe various wines used for medical purposes, which number between twenty and thirty, many of which are included in the British Pharmacopoeia, as, for instance, vin. ipecac. The various "vins" are included in the usual wholesale druggists' price lists. Children are taught the difference between W and V in all schools, and the English alphabet would be very inconvenient and the poorer without these distinguishing letters. For this reason, average intelligence would note the difference in the words "vinox" and "winox." Defendant disputes any similarity in the two preparations. In fulfilment of the law Winox declare their preparation to contain alcohol. Vinox is not intoxicating; the labels are very different; Winox uses gilt foil, Vinox uses silver foil. Defendant claimed that his preparation caters for the enormous section of the public holding pronounced views upon the subject of temperance, prohibition, and other movements, which represents another extreme of contrast against Winox as an alcoholic preparation. Mr. Luxmoore, K.C., for plaintiffs, said the defendant contended there was no likelihood of confusion and no similarity between the two preparations. But counsel thought the names so similar that there could be no doubt about confusion arising. He thought his lordship would judge on the pleadings that the action was undefended. When the defendant urged that his own preparation was non-alcoholic, his lordship said it was immaterial what was inside the bottles. If it was non-alcoholic, why did defendant call it wine? Defendant: Cordials and such-like preparations are so described in the druggists' lists. The term is in customary use. You have ginger wine and cowslip wine. An enormous business is done in non-alcoholic wine. Giving judgment, his lordship said the defendant had sold his preparation under the name complained of for six years, knowing the plaintiffs had complained of it. There must be an injunction in the terms of the statement of claim, with an order for delivery upon oath of all labels and advertisements in defendant's possession containing the words complained of. Mr. Luxmoore did not persist in a claim for damages.

Chemists' Commission Claim.—Mr. Justice McCardie had before him, in the King's Bench Division, on March 6, a claim by Frederick Joseph Osborne, chemist, 69 Edith Road, West Kensington, against Theophilus Morgan Davis, chemist, 37-38 Coventry Street, Piccadilly, for £250 commission, alleged to be due, or alternatively an account. Mr. Melville, for plaintiff, said that many years ago plaintiff had worked for defendant as an assistant. The present action arose upon an engagement of the plaintiff by defendant as the manager of a chemist's shop in Coventry Street at the end of December 1918. Plaintiff alleged that he was employed on terms which included the payment of a commission on the profits of the business. He also alleged that at the end of March or the beginning of April 1919 it was agreed that, in lieu of the agreed percentage commission, the

defendant should set aside £500, half of it to be paid to the assistants in the business, and the remaining £250 to the plaintiff. It was that sum the plaintiff was now claiming. Plaintiff's employment terminated amicably on February 14, 1920, but defendant had declined to pay the £250. The defence was a denial of any agreement to pay £250 or any commission. In the autumn of 1918, added plaintiff's counsel, the plaintiff was managing a branch of Boots, Ltd., at Bishopsgate, and defendant called upon him and renewed an old acquaintance. Defendant said he had in his mind a project for developing a business that he was interested in in Coventry Street as soon as the war came to an end. After the Armistice defendant saw plaintiff again, and asked him to assist in taking over and developing a chemist's business in Coventry Street, which was then being carried on on behalf of defendant's relations. Defendant said he was going to make the shop the most attractive in the West End, and was going to put in a new front and make several other improvements. It was then agreed that plaintiff should become manager, at a salary of £8 a week for the first six months, and after that £9 a week for six months, and then he was to get commission on the profits of the business at the rate of 2½ per cent. on the first £10; 5 per cent. on the second £10; 7½ per cent. on the third; 10 per cent. on the fourth; 12½ per cent. on the fifth; and after that 15 per cent. on any sum above £50. That commission was to be on the net profits. The takings rose from £66 for the week ending March 8 to £81 for the week ending March 15; £96 for the week ending March 22; and kept on increasing till June, when the takings were £170 a week. When the takings had risen above £100 a week, defendant said instead of paying the commission he would set aside £500 for the staff, of which plaintiff should get £250. The Judge: £250 for all time? Mr. Melville: No; for the year. When plaintiff left, in February, he spoke about his commission, and defendant said he would send on a cheque. That he had since refused to do. Plaintiff, in his evidence, said in September 1919 the takings were £209 a week, but after that they declined. The average for fifty weeks was £150 a week. Mr. Hurst, K.C., for defendant, admitted that defendant agreed to pay 2½ per cent. commission on the net profits, but denied that there was any promise to pay £250. The net profits of the business during the whole time plaintiff was employed there were £497. Mr. Theophilus Morgan Davis, managing director of J. M. Davis & Sons, Ltd., denied, in evidence, that there was any agreement to pay commission, but said he had promised commission as an encouragement to the assistants if they made the business a success. In reply to the judge, witness said he wanted them to take a personal interest and pride in the business and make it the best in London. The scheme of commission he promised was a profit-sharing idea. The more they made, the more he would make; but he never at any time agreed to pay the assistants a fixed sum. Mr. Justice McCardie: Have any of them ever got anything out of this profit-sharing idea?—No; no one stopped twelve months. Defendant, in reply to Mr. Melville, said if the business had gone on as it was at its best he should have got in the year a profit of £3,500, and the assistants would have had £500 to divide among them. But in November, after the Australians went back and the officers had spent their gratuities, the business dropped like a stone. His lordship, in his judgment, said in the pleadings defendant disputed any liability for commission, but Mr. Hurst, K.C., with his usual tact, recognised that defendant could not dispute responsibility for commission. The correspondence acknowledged the plaintiff's right to commission, but his lordship said he was not satisfied there was a definite agreement to pay plaintiff £250 in satisfaction of his claim for commission. The result of this alleged philanthropic profit-sharing scheme, added his lordship, was that plaintiff had to bring this action even to get his elementary right to commission, and it was an unfortunate circumstance that no member of the staff had yet received a penny under the scheme. Judgment was entered for plaintiff for an account and for payment of commission at the rate mentioned by Mr. Melville, his counsel. Costs were given against the defendant.

Dangerous Drugs Act Cases

At West London Police Court, on March 7, Hugh Ashton Wolfe, engineer, Clarendon Road, was charged on remand with being in unlawful possession of heroin, and his wife, Gladys Torfrida Wolfe, was charged with unlawfully procuring the heroin (*C. & D.*, February 18, p. 40). Mr. William Ernest Shrive, chemist and druggist (trading as Gamble & Co.), Edwardes Terrace, W. 8, was summoned on four counts for supplying the heroin and for failing to keep proper entries in the register relating to the sales. Mr. Barker, prosecuting, stated that on February 13 Mrs. Wolfe was stopped by a detective as she was leaving Notting Hill Gate Post Office with a letter addressed to "Dr. H. Wolfe, Poste Restante." In the letter was a packet bearing a label of Gamble & Co., and containing 10 gr. of heroin. She stated that her husband, whom she married in Italy in 1921, was addicted to the drug habit, and that since August she had taken prescriptions for heroin written by him to Gamble & Co. Last week she received an anonymous letter warning them not to go to the chemist for the drug, as it was against the law; and it was then arranged that it should be sent to the post office. She added that she was a doctor's daughter. Wolfe, when arrested, admitted that he had been taking from 7 gr. to 10 gr. of heroin daily. A detective-inspector subsequently saw Mr. Shrive, who admitted that he had supplied Wolfe with heroin on prescriptions written in technical terms by Wolfe himself. He said he thought Wolfe was a doctor and entitled to be supplied with drugs. An examination of the register showed that on several days there was no entry of the name of the purchaser. Mr. C. H. Kirby, for Mr. Shrive, said that Wolfe represented himself as being an Austrian doctor, and the prescriptions were in correct medical terms. He understood that Wolfe was suffering from cancer. Mr. Shrive charged 4d. per gr. and allowed him 10 per cent. discount as a professional man. Mr. Shrive filed all the prescriptions and entered them in the register; and when he sent the heroin by post he labelled it with the name and address of his firm. The magistrate ordered Mr. Shrive to pay a fine of £100, including costs, or go to prison for three months. His worship sentenced Wolfe to four months' imprisonment, and bound Mrs. Wolfe over for twelve months.

In the Sheriff Court, Glasgow, on March 4, Mr. Solomon Levine, chemist and druggist, 190 Dumbarton Road, Partick, was charged with having on certain dates in November and December 1921 sold to William Taylor, an unauthorised person, twelve tubes containing $\frac{1}{2}$ -gr. tablets of morphine sulphate, and with having on the said dates failed to enter in the register kept by him under the Dangerous Drugs Act the true purchaser thereof, and with having falsely entered in the register the name of a doctor as purchaser, and with having subsequently cancelled the name of the said doctor and substituted the name of the said William Taylor, whereby the said Solomon Levine was liable in respect of each of the said nineteen offences to a fine not exceeding £200, or to imprisonment, or to both. The accused pleaded "Guilty" to the charges. Mr. James Adair, Depute Procurator-Fiscal, who appeared for the prosecution, informed the Court that Taylor was a drug fiend, and that not only was he using the drug himself, but he was supplying it to a girl with whom he was intimate. Taylor himself was in prison awaiting trial on a charge of uttering forged prescriptions. Mr. David M. McCracken, solicitor, explained, on behalf of the accused, that on the first occasion on which Taylor came into the shop he had a prescription; the first transaction with him was quite in order, and was not challenged. He came into the shop on subsequent occasions, and the accused's assistant, having erroneously assumed that it was in order that he should be supplied, procured the drug from the wholesale house and sold it to Taylor. Mr. McCracken also explained that the accused had two businesses, one in Partick and one in Govan, and that, having to supervise both, he had been guilty of carelessness, so that the dangerous drugs register was not entered up regularly at the time when purchases and sales were made. The accused had had

few transactions in drugs coming under the Act, and as the doctor in question was almost the only purchaser of such drugs, he had, in writing up the register, inserted his name. After the police started their inquiries the accused corrected the register, but instead of doing so in the proper way by a foot-note, he did it by deleting the doctor's name and substituting that of the true purchaser. The sheriff remarked that he looked upon the case as a very serious one, large quantities of the drug having been sold to a person who not only used it himself but also supplied it to a girl. The most serious aspect of the case was that the accused had inserted the doctor's name instead of that of the true purchaser. He (the sheriff) could not treat the case as anything but serious, and was not disposed to impose a nominal fine; but, as this was the first case under the Act in that court, he limited the fine to one of £25, with the alternative of three months' imprisonment.

At Marlborough Street Police Court, London, on March 4, Fernand Maghin, a Belgian, was sentenced to five months' hard labour for being in unauthorised possession of cocaine.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office:

T. A. BONELL, LTD. (P.C.).—Capital, £500. Objects: To carry on the business of chemists and druggists, etc., and to adopt an agreement with T. A. Bonell. T. A. Bonell, 310 Barkerend Road, Bradford, is the first director.

BRITISH SPONGE PRODUCTS, LTD. (P.C.).—Capital, £1,000. Objects: To carry on the business of manufacturers of and dealers in rubber and artificial sponges and products thereof, etc. The permanent directors are: C. Wade and W. A. Calf. R.O.: 36 Aldermanbury, Bradford.

THOMAS FELL & CO., LTD. (P.C.).—Capital, £1,000. Objects: To carry on the business of manufacturers of perfumes and soaps, manufacturing and general chemists, manufacturers of and dealers in toilet requisites, collectors of flowers and perfume-producing vegetation, etc. Solicitors: Lloyd, Richardson & Co., 7 Henrietta Street, London, W.C. 2.

J. W. EDMONDSON & CO., LTD. (P.C.).—Capital, £3,000. Objects: To acquire the business of a chemist and druggist, drug merchant, drysalter, oil and colour man, patent-medicine vendor, and seedsman carried on by J. H. Smith as "Smith," in the County of Lancaster. The first directors are J. W. Edmondson, 9 High Street, Rishton, chemist and druggist, and W. H. Parker, 42 Glenfield Road, Nelson, gardener. R.O.: 9 High Street, Rishton.

HALLER & PHILLIPS, LTD. (P.C.).—Capital, £10,000. Objects: To take over the business of a chemical and general merchant and broker carried on by J. G. Haller at 69 Bishopsgate and 7 Union Court, Old Broad Street, E.C., and all or any of the agencies and branches thereof. The first directors are: J. G. Haller, "Langham House," 197 Albany Street, Regent's Park, N.W. 1; G. W. Phillips, 25 Oakington Manor Drive, Wembley Hill; and H. C. Bound, 114 Lea Road, Blackheath, S.E. R.O.: Mildmay Chambers, 69 Bishopsgate, and 7 Union Court, Old Broad Street, London, E.C.

WILLIAM GOSSAGE & SONS, LTD.—The accounts for the year ended November 30, 1921, show, after providing for all charges, a balance at credit of profit and loss of £148,835. The directors recommend a dividend on the ordinary shares of 15 per cent., carrying forward £2,585.

SAVANNAH CHEMICAL CO.—At a meeting held in London on February 20 it was resolved that this company be wound up voluntarily. Mr. Percy Woodthorpe, 1 Leadenhall Street, London, E.C. 3, was appointed liquidator. A meeting of creditors will be held at the above address on March 9, at 3 o'clock.

Corner for Students

Conducted by Leonard Dobbin, Ph.D.

Communications should be addressed "Corner for Students, 'The Chemist and Druggist,' 42 Cannon Street, London, E.C. 4."

Report on the February Analytical Exercise

THE powder distributed to students on February 7 consisted of equal parts by weight of zinc acetate, barium oxalate, and calcium oxalate. The calculated composition of such a mixture is:

Zn	9.2
Ba	18.8
Ca	9.1
C ₂ H ₃ O ₂	16.6
C ₂ O ₄	32.1
H ₂ O	14.2
	100.0

The powder also contained, as impurities, an ammonium compound and the sulphuric acid radical in small proportion, together with just recognisable traces of iron and of a chloride.

Samples of the powder were distributed to seventy-one students, and forty-one reports were sent in for examination. The failures in the detection of the several constituents were: (a) Metallic radicals: zinc, 3; barium, 8; calcium, 18. (b) Acidic radicals: Acetic, 10; oxalic, 7. Eighteen students failed to report the evolution of water when the powder was heated in a dry-tube.

As in the case of our last exercise, this analysis has proved to be a somewhat difficult one, and particularly so in regard to details which called for close and careful observation. It is noteworthy in this connection that the presence in the powder of a small portion which did not dissolve on prolonged boiling with dilute hydrochloric acid was only observed by two students, and that the presence of the distinct trace of an ammonium compound was only reported in a single instance. The residue insoluble in hydrochloric acid was small, but it was nevertheless sufficient, when dealt with according to the usual routine, to be recognised as barium sulphate. When mixed with soda-lime and moistened on a watch-glass with concentrated solution of potassium hydroxide, enough ammonia was given off from a small portion of the original powder to render distinctly blue a strip of moistened red litmus paper (attached to a second watch-glass which was inverted over the mixture so as to confine the evolved gas) after standing for a short time.

A cause of a considerable number of mistakes was the omission to ignite, or the failure to ignite sufficiently strongly, before proceeding to test for the metals of the iron and zinc groups. Organic matter having been plainly enough indicated by the darkening that occurred when the powder was simply heated, the complete decomposition of this by strong ignition should have been duly attended to, and, as a matter of fact, the ignition required to be carried up to a pretty high temperature—best on platinum foil—in order to effect the decomposition of the last traces of the oxalates. The numerous precipitates which were taken for iron-group precipitates, and were often reported as due to aluminium (but which really owed their formation to partial or complete failure to decompose the oxalates), consisted largely of calcium oxalate, and the premature removal of calcium at this stage sometimes prevented any of this metal from reaching the barium group. A few students who reported a brown precipitate in the iron group, sufficient in quantity to be capable of routine manipulation, must have had iron introduced as impurity in some reagent, since the minute trace of iron in the powder was only just capable of recognition by delicate tests, and could not have yielded enough precipitate to be handled in the usual way.

Magnesium was so commonly reported as a main constituent, or as an impurity, that a special separation was carried out with a relatively large quantity of the powder in order to test for it, but with a negative result. It is almost certain that the precipitates taken for ammonium

magnesium phosphate consisted of calcium phosphate—some calcium which had, as is usual, escaped precipitation by ammonium carbonate not having been removed, as it should have been, by means of ammonium oxalate prior to evaporation to dryness, ignition, solution of the residue in hydrochloric acid, filtration, and addition of excess of ammonia followed by the addition of ammonium phosphate as reagent for magnesium.

The precipitate taken in several cases for silver chloride was really almost entirely silver oxalate, the precipitation of the latter only being prevented when nitric acid is present in a sufficient degree of concentration, but not by mere acidification of a solution with this acid.

Metallic radicals reported present, but which the powder did not contain, included lead, tin, manganese, aluminium, strontium, magnesium and lithium. The radicals of citric, tartaric, benzoic, carbonic, sulphurous and thio-sulphuric acids were also absent.

Various students to whom separate replies have not been made will find in the foregoing general remarks, or in the replies below, references to points regarding which they have made mistakes.

PRIZES

The First Prize for the best analysis has been awarded to:

T. C. ROBINSON, 14 St. James' Road, Church, Lancs.

The Second Prize has been awarded to:

THOS. RALPH, 28 Rosegrove Lane, Burnley, Lancs.

First Prize.—Any scientific book that is published at a price not greatly exceeding fifteen shillings may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about seven shillings and sixpence may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES

1. Correspondents who are unqualified:

T. C. Robinson (1st Prize)	93	Kudar	68
T. Ralph (2nd Prize)	92	Mait	68
Cannabis Indica	90	Palladwr	67
Desmid	90	Squib	67
Sinigrin	88	Æsculapius	66
Califigs	87	Rue	66
Medica	87	Alphabeta	58
Advertiser	85	Caglio	55
Pansy	84	Secto	54
Senecio Jacobæ	84	Hitta	53
Element	78	Ormonde	52
Epiginous	76	Phenol	51
Rhatany	74	Perge	49
Altior	73	Aza	48
Excelsior	73	Pimento	47
Musker	73	Ptah	47
Wolfsbane	71	A. J. C.	38
Scopolamine	69	Johann	31
		Cáon	26

2. Correspondents who are qualified:

Desideratum	82	Hopeful	67
E. B. S.	72	Pinene	31

TO CORRESPONDENTS

T. C. ROBINSON.—In testing for a citrate by means of mercuric sulphate and potassium permanganate, reduction of the latter by the oxalate was certain to occur, but no white precipitate appeared.

T. RALPH.—The zinc used in conjunction with dilute sulphuric acid to generate hydrogen for driving liberated carbon dioxide out of a test tube should be well washed with dilute sulphuric acid to decompose the trace of basic carbonate usually present on the slightly dull surface of the metal. Solution of ferric chloride to be used in testing for acetates should be as nearly neutral as possible: free hydrochloric acid is often present in this reagent in quantity sufficient to prevent the appearance of the red colour due to ferric acetate.

SINIGRIN.—The copper-group precipitate with hydrogen sulphide must have been due to an introduced impurity—possibly in some reagent employed.

CALIFIGS.—It is probable that the sulphuric-acid radical you detected, or at any rate the greater part of it, was introduced as impurity in the sodium carbonate. The test for manganese by means of nitric acid and lead peroxide gave in our hands a negative result. Examine the peroxide for traces of manganese in a blank test.

MEDICA.—Ferric chloride gives a red coloration—not a red precipitate—with acetates. Hydrochloric acid merely destroys this coloration.

ELEMENT.—The mixture and its several ingredients were separately tested for traces of a nitrate, but with a negative result in each case. Lithium, magnesium, and a benzoate were not present.

RHATANY.—Seeing that you had arrived at such correct conclusions regarding the composition of the powder, it is to be regretted that you did not do justice to your analysis by submitting a full report of it. The insufficiency of your report is responsible for nearly all the marks you have lost.

ALTOR.—The summary of constituents found should not include the name of any radical accompanied by a note of interrogation. The responsibility for stating a definite conclusion rests with you, and the reader of the report cannot give credit for a queried statement even if this be correct, while marks may be deducted if it be incorrect.

MUSKER.—See the reply to "Sinigrin."

PALLADWR.—It appears from your report that you tested for an oxalate by adding calcium chloride to the nitric-acid solution of the powder; but calcium oxalate is soluble in nitric acid. The test should have been applied to an acetic-acid solution.

SQUIB.—The chromyl-chloride test for a chloride is not sufficiently delicate to reveal the presence of such a minute trace as the powder contained.

RUE.—Suspecting an organic acid, you should have evaporated to dryness and ignited strongly before proceeding to test for the iron and zinc groups. Failure to do this ensured the precipitation of calcium oxalate on adding ammonium chloride and excess of ammonia as group reagents.

PERGE.—Having detected barium in the ammonium carbonate precipitate, you appear to have assumed that this sufficiently accounted for the precipitate having been formed, and, accordingly, to have intentionally omitted to test for strontium and calcium. That, however, is not the way to conduct an analysis. You suggest the possible presence of manganese, but why did you not prove it present or absent by testing for it by means of one or other of the delicate tests available?

AZA.—Read the reply immediately preceding, and note that the symbol for manganese is not Mg.

A. J. C.—In testing for acid radicals you report the addition of various reagents to a neutral solution, but you give no indication as to how this neutral solution was obtained, and the results you record give no assistance towards supplying the omission. Careful descriptions of how solutions were obtained are essential in forming an opinion as to the accuracy of the results reported.

JOHANN, TIMMS, and PINENE.—Careful study of the general remarks and the replies to other students may aid you in recognising where you went astray.

DESIDERATUM.—You may be surprised to learn that the insoluble residue which you separated and examined was observed and tested by only one other correspondent.

PROGRESS OF THE TOURNAMENT

Four out of the six analyses in the current tournament having now been completed, it is of interest to note the positions of the foremost competitors in the list of aggregate marks. The ten students who head the list, with their aggregates, are mentioned below:

Alphazo	354	Senecio Jacobæ ...	321
Desmid	338	Sinigrin	318
Altior	330	Pinus	313
Califigs	330	Caglio	310
Cannabis Indica ...	324	Æsculapius	298

Festivities

Whist-drive at Blackburn

THE North-East Lancashire Chemists' Association spent an enjoyable evening on March 2, when a whist-drive and social was held. Mr. Ralph Pickup, the President, officiated as M.C., and was assisted by Mr. Fred Law, the secretary.

Supper at Sheffield

THE Sheffield Pharmaceutical and Chemical Society held their second hot-pot supper, which was highly successful, at Atkinson's Restaurant, recently. After supper the following artists were thanked by Mr. Gilbert Jackson for their services: Messrs. Cross, Brown, Granville Shaw, Wilburn and Elliott, and Hammond.

The Surgical Hosiery Co.'s Dinner

A DELIGHTFUL evening was spent by the staff of the Surgical Hosiery Co., Ltd., on February 24, when about 200 employees partook of an excellent dinner which was followed by a concert and dance. Mr. F. Birley (the manager) proposed the toast "Success to the Firm," and thanked the directors for their hospitality in giving such an enjoyable evening. Mr. E. F. Hutchinson (managing director) acknowledged the toast.

Dinner at Great Yarmouth

THE annual dinner of the Great Yarmouth Pharmaceutical Association was held on March 1, the President (Mr. E. H. Kellam, Beccles) presiding. After dinner whist was played, Mrs. Harvey Palmer presenting the prizes at the close to the following: *Ladies*—(1) Mrs. Rumbold, (2) Mrs. Male; *Gentlemen*—(1) Mr. Harvey Palmer, (2) Mr. F. E. Whitfield. Mr. P. R. Hill was an efficient M.C., and an enjoyable evening was spent.

Liverpool Chemists' Whist-drive

THE recent whist-drive and dance at the Britannia Rooms formed a record both as to attendance (over 150) and financial success. Mrs. W. H. Clubb (wife of the President) distributed the whist prizes as under:—*Ladies*: (1) Mrs. Sainsbury, (2) Mrs. Ashcroft, (consolation) Miss Simpson. *Gentlemen*: (1) Mr. R. E. Lloyd, (2) Mr. Roger Rowlands, (consolation) Mr. Martin Hughes. The reunion proved thoroughly enjoyable.

Leicester Assistants' Whist-drive

A SOCIAL gathering of the Leicester and Leicestershire Pharmaceutical Assistants' Association on February 21 began as a whist-drive and ended in a dance. Prizes presented by several wholesale houses in the drug-trade were won by Miss Spence (1), Miss Carpendale (2), Miss Wright (3), Miss Hill (consolation), and Miss Spence (interval prize); Messrs. Hunt (1), Coley (2), E. Carver (3), R. Turnbull (consolation), and Ranby (interval prize).

Ellanbee Whist-drive

THE staff of Lewis & Burrows, Ltd., held a whist-drive, under the auspices of the Ellanbee Social Club, in the Cripplegate Institute, London, E.C. 1, recently. For the success of the evening's entertainment the committee were largely indebted to Butler & Crispe, The British Drug Houses, Ltd., W. Edwards & Son, S. Maw, Son & Sons, Ltd., A. & F. Pears, Ltd., Parke, Davis & Co., Titterton & Howard, Ltd., and other wholesale houses, several of whose representatives were present.

Walthamstow Whist-drive

THE Walthamstow Pharmaceutical Association spent an pleasant evening on February 13, when the second whist-drive in aid of the Benevolent Fund of the Pharmaceutical Society took place. The donors of the prizes were Mr. W. Beard, Mr. H. Lynn (Allen & Hanburys, Ltd.), Evans Sons Lescher & Webb, Ltd., D. & W. Gibbs, Ltd., Sangers, and W. Sutton & Co. The winners were: *Ladies*—(1) Miss Mayes; (2) Miss O'Connor; (3) Miss Sawdon. *Gentlemen*—(1) Mr. Moorley; (2) Mr. W. Gray; (3) Mr. W. Deeth. As a result of the drive £11 11s. was obtained for the Fund.

Sheffield R.P.U. Dinner

A SUCCESSFUL DINNER of the Sheffield branch of the Retail Pharmacists' Union was held on February 22, at which Mr. J. Gilbert Jackson, chairman, presided. After the loyal toast, Mr. H. Gilleggan (Leeds) proposed the "Local Branch of the Union," congratulating the branch on having a membership of 100 per cent. of the retail chemists of Sheffield. The chairman responded. Mr. H. Bown proposed the toast of "The Ladies," which was responded to by Mrs. Appleton. Mr. J. T. Appleton proposed a vote of thanks to the following artists: Miss L. Antcliffe, Miss Hall, Mrs. H. B. Hammond, Hugo Cross, and E. E. Haslegrave; Mrs. T. F. Burdekin presided at the piano. Mr. H. B. Hammond replied.

Plymouth Chemists' Whist-drive

THE arrangements made by the Committee of the Plymouth Association of Pharmacists for a whist-drive and dance at the Duke of Cornwall Hotel, Plymouth, recently, provided a successful social evening, over a hundred members and friends attending. The guests were received by the President (Mr. B. Shelton) and Mrs. Shelton, and proceeded to the music-room for progressive whist, the prizes being subsequently presented by Mrs. Shelton to the winners:—*Ladies*: Mesdames H. Lawrence Spear, Usher, F. Spear, and Earl. *Gentlemen*: Messrs. Wreford, Robins, and Burge. Supper was followed by dancing, Messrs. R. Gollop and J. E. Poad officiating as M.C.'s. In the intervals a musical programme was contributed by Misses Butler, Greenwood, and Widger, and Mr. Walters. The Committee intend to devote any surplus funds to charitable purposes.

Wolverhampton Chemists' Whist-drive

A SUCCESSFUL whist-drive in aid of the Benevolent Fund was held on February 16. Mr. H. Oakley, who was responsible for carrying through the drive, officiated as M.C. At the close of play a short account of the work of the Benevolent Fund was given by Mr. F. J. Gibson, J.P. The prizes were distributed by Mrs. H. Oakley as follows: *Ladies*—(1) Mrs. S. Phillips; (2) Mrs. W. R. Dunn; (3) Mrs. F. Dewes. *Mystery Prize*—Miss Crombie. *Travelling Prize*—Miss I. Smith. *Gentlemen*—(1) Mr. Bate; (2) Mr. Garston-Jones; (3) Mr. W. Howell. *Mystery Prize*—Mr. W. Wright. The donors were Southall Bros. & Barclay, Ltd., Parke, Davis & Co., S. Maw, Son & Sons, Ltd., The British Drug Houses, Ltd., Mr. F. J. Gibson, Baiss Bros. & Co., Ltd., Allen & Hanburys, Ltd., Evans Sons Lescher & Webb, Ltd., and Mr. H. Oakley. Special interest attached to the lady's travelling prize (a fine piece of needlework), as it was the handicraft of an annuitant. The Benevolent Fund benefits to the extent of £15 5s.

Dinner at Hammersmith

THE Hammersmith and Fulham members of the Western Pharmacists' Association held a homely gathering, on March 1, at the Clarendon Hotel, Hammersmith. The President (Mr. W. E. D. Shirliff) and Mrs. Shirliff received the guests, and after the loyal toast Mr. W. Wilkinson proposed "The Pharmaceutical Society," Mr. A. R. Melhuish (member of the Council) responding. Mr. T. Marns (Ealing) proposed "The Western Pharmacists' Association," coupling the name of the President with the toast. Mr. Shirliff, in responding, stated that members of the Society and student associates would have an opportunity to meet together throughout the Metropolis by means of the branches formed in each area. He referred to a meeting held recently to consider arrangements for a competition in various sports which would take place in the summer. He thanked the dinner committee for their services, and particularly Mr. G. Roe. Mr. G. A. Hamilton proposed the toast of "The Ladies and Visitors," Mr. C. A. Noble and Mr. G. Roe replying. The musical programme was much appreciated.

Whist-drive at Nottingham

A SUCCESSFUL whist-drive was held by the Nottingham Pharmacists' Association on March 2. The attendance numbered 110, and the prizes were distributed by Mrs. Sergeant, wife of the President. During the evening the

Misses FitzHugh presented to the Association a gold presidential badge, given in memory of their father, Mr. Richard FitzHugh, who was President of the Association from 1876 to 1918, and one of Nottingham's leading men in civic affairs and Freemasonry. Miss A. E. FitzHugh explained that it was an appropriate time to give the badge in view of the fact that the Conference is to be held this year in Nottingham. Miss A. L. FitzHugh invested the President, Mr. F. Ross Sergeant, with the badge, and both ladies were cordially thanked by him. The badge, which is of exquisite workmanship, is two and a-half inches in diameter. The one side bears the pharmaceutical arms surrounded by the words "President Nottingham Pharmacists' Association," and on the reverse side are the words "Presented to the Association by the daughters of the late Richard FitzHugh, President 1876-1918."

Aberdeen Chemists' Dinner

THE annual dinner of the Aberdeen Pharmaceutical Association was held in the Imperial Hotel on February 22. There was an attendance of nearly fifty, presided over by Mr. W. F. Hay (President). The guests of the evening were Dr. and Mrs. Tocher, and Mr. A. M. Craig, the Burgh Insurance Clerk. An innovation was the presence of ladies. After the loyal toasts, Dr. Tocher proposed "The Pharmaceutical Society," and advised all pharmacists to join, claiming that it had moulded the destinies of the pharmacists in Great Britain; and, although it might have shortcomings, these could only be remodelled from the inside. As a past examiner, he could say that the examinations as conducted are perfectly fair. Unless the examinations are of a high technical standard, chemists would have no standing. He paid a compliment to the Aberdeen School of Pharmacy and advocated a meeting of the governors of the various colleges in Scotland to meet and prepare a syllabus for uniform study. He took exception to the present form of election to the Council, and suggested a territorial representation for areas. Mr. Hay replied. Bailie Taylor, in a racy speech, gave "The Aberdeen Pharmaceutical Association," the secretary acknowledging. "Kindred Associations," by Mr. Ross, was responded to by Mr. Reith, for the Scottish Pharmaceutical Federation and Mr. Farquhar for the Golf Club. Mr. Simpson proposed "The Ladies," Mr. Kidd replying. "The Strangers" was given by Mr. Bruce and Mr. Craig replied.

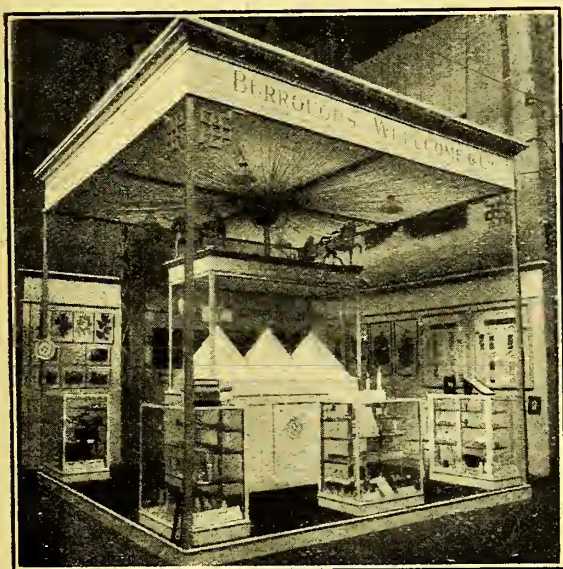
Peterborough Chemists' Dinner

THE annual dinner of the Peterborough Association of Pharmacists was held at Peterborough on February 23, when for the first time ladies were present. Mr. T. J. Calcutt (President) occupied the chair, and there was a large attendance. At the conclusion of the repast there were the usual speeches, interspersed by a musical programme contributed to by several of the ladies. The toast of "The Pharmaceutical Society" was proposed by Mr. J. W. Ailsby (Whittlesey), and responded to by Mr. J. W. Bodger. At one time, he said, he found fault with the Society, but since he had been in attendance at Bloomsbury Square and had seen the inner workings, he knew that pharmacists had to thank the Society for many things which had been done. Touching upon the policy of the Society, he said the three chief points were "Organisation, Education, and Benevolence." He protested against the federating of districts because he did not think it would be workable. He then told of the formation of a botany class in Peterborough for the students to prepare for their "Minor." They also had a fine chemistry class, and it was hoped soon to obtain a grant from the education authorities for the botany class. From the benevolent side, he remarked that the Society had paid out £3,500. Major J. H. B. Wigginton, a director of The Erasmic Co., Ltd., proposed the toast of "The Peterborough Chemists' Association." Mr. C. Bayley, Uppingham, who claimed to have been associated with pharmacy for half a century, responded, and told of the great benefits which he knew the association had bestowed. A collection taken for the Benevolent Fund realised £1 17s.

British Industries Fair

THE Fair received the royal *cachet* on Thursday, March 2, when it was visited by the King and Queen. The royal party arrived at the Shepherd's Bush entrance, where the first exhibits to be examined were those in the chemical section, and considerable interest was shown in the very fine displays of the British Dyestuffs Corporation, Ltd., Burroughs Wellcome & Co., The British Drug Houses, Ltd., and others.

On the same day the Government gave a luncheon, at which the President of the Board of Trade, Mr. Stanley Baldwin, M.P., presided. He was supported by the official representatives in London of the British Dominions and foreign countries, as well as by leaders of British industrial enterprise and buyers attending the Fair to supply the needs of home and overseas markets. Among others present were Mr. W. J. U. Woolcock, M.P. (general manager of the Association of British Chemical Manufacturers), Mr. C. A. Hill (The British Drug Houses, Ltd.), Mr. G. E. Pearson (Burroughs Wellcome & Co.), and Mr. H. W. Kilby Pears (the Standard Tablet Co., Ltd.). Mr. Pearson was fresh from a few minutes' conversation with the Queen, who had told him that the bijou



BURROUGHS WELLCOME & Co.'s EXHIBIT.

"Tabloid" first-aid cabinet which the firm had presented to Princess Mary (see *C. & D.*, March 4, p. 56) was so much appreciated by the Princess that she had taken it away with her on her honeymoon.

In proposing "The British Industries Fair," the President of the Board of Trade emphasised the value of such exhibitions for the popularisation of British industries. Exhibitors should see that the merits of their goods were subsequently pushed in all the markets of the world. Some play was made by Mr. Baldwin and other speakers about the "reprieve" which had been granted to the Department of Overseas Trade, and, if one may judge by the applause, it was apparent that the business men present were heartily agreed that the Department was distinctly useful to British commerce.

Owing to unusual pressure on space in our last week's issue, our notice of several first-class exhibits was severely curtailed. Of these, it should be recorded that the stand of the BRITISH DYESTUFFS CORPORATION, LTD., was one of the largest in the chemical section of the Fair, and, being chiefly confined to aniline dyes and samples of articles dyed with them, gave the visitor an idea of what is being done in this country in the manufacture of such products. Portions of the stall were allotted to the display of such chemicals as beta-naphthol, salicylic acid, and

phenol. A handsome booklet of thirty-two pages, bound in green leather, gives a comprehensive list of colours made by the company; and an accompanying pamphlet outlines the contribution of the dyes industry to war work.—B. LAPORTE, LTD., have arranged a noteworthy display of barium salts, which, together with hydrogen peroxide and formic acid, comprise the main part of the company's exhibit.—A. S. CARTWRIGHT, LTD., made a prominent display of their well-known "Holdfast" soothers, among an assortment of other articles of their manufacture designed to give joy to juveniles.—MANSELL, HUNT, CATTY & Co., LTD., showed specimens of many varieties of paper goods, which include bottle-caps, embossed seals, rigid and folding boxes, etc.—The Khovah health salt of SUTCLIFFE & BINGHAM, LTD., struck one as a taking and distinctive line, put up as it is in hexagonal bottles with a cap and a striking label.—WILLIAMS BROTHERS & Co. have had an enviable reputation for some time past for aniline colours adapted for use in almost every kind of technical process, and their exhibit shows that they are still well to the fore in this respect.—The collection of intermediates and dyes shown by JOHN W. LEITCH & Co., LTD., is an excellent one. Colours and dyes are a war-time development of Messrs. Leitch's enterprise, and we are pleased to gather that they are expanding in this department. Consistent standards are an important feature of their manufacture, and to these no small measure of the company's success is due.—With regard to the exhibit of BOOTS PURE DRUG Co., LTD., it is of interest to note that the company has recently issued a handsome art catalogue, containing the names of nearly 100 synthetic and complex chemicals, ranging from acetanilide to vanillin, with the specifications and constitution of each. All these articles are made by the company, which is now in a position to supply a large range of fine chemicals. The Fair closes on March 10.

Poisonings

In the Court of Criminal Appeal, on March 6, the appeal of Ernest E. Black against his conviction for the murder of his wife by administering arsenic to her (*C. & D.*, February 11, p. 47) was dismissed.

An inquest was held at Nottingham, on February 24, on the bodies of the Rev. Albert Edwin Allaby and Ethel Guthroe, who were found dead in a local hotel on the previous day. A medical witness said that both bodies showed signs of hydrocyanic-acid poisoning, the man's body especially. A notebook found in the clergyman's pocket contained the entry "Cyanide of potassium 452 grains, champagne." A verdict of "Felo de se" was returned. According to police investigators, Mr. Allaby purchased 1 oz. of potassium cyanide at the pharmacy of Mr. V. Strawson, Moss Street, Liverpool, on January 10, signing the poison-register.

An inquest was concluded in West London, on February 28, on the body of Edwin G. Percy, dairyman (*C. & D.*, February 18, p. 39). Mr. John Webster, F.I.C., senior analyst to the Home Office, stated that he had made an analysis of various organs: he found veronal present in all of them. The Coroner: In sufficient quantity to cause death?—Yes, certainly; about 100 gr. The witness added that a fatal dose for a normal person would be about 50 gr., although 15 gr. had been known to cause death. That deceased was subject to drink would make him more susceptible to the effect of the poison. The widow of the deceased, recalled, was unable to say where the veronal was obtained. A verdict of "Suicide during temporary insanity" was recorded.

An inquest was held by the Westminster coroner, on February 28, on the body of Viscount Harcourt, who was found dead in bed on February 24. Lady Harcourt gave evidence to the effect that Dr. Freeborn, Nuneham Courtenay, had prescribed Bromidia for her husband. Dr. H. B. Weir, pathologist at Charing Cross Hospital, said that a fatal dose of Bromidia was "somewhere about an ounce." It was, in the circumstances, not a wise thing for Lord Harcourt to take it. A verdict to the effect that death was due to misadventure was recorded.

Wine-licence Applications

At Newington (London) Brewster Sessions, on March 6, application was made by Mr. Cecil Whiteley, K.C., with whom was Mr. Elliott, for a transfer of wine off-licences from Mr. John Murison, chemist and druggist, deceased, to Mr. Edward Salthouse, chemist and druggist, director and general manager of Parke's Drug Stores, Ltd., in respect of the following premises: 114 Rye Lane, S.E.; 1 Electric Avenue, S.W.; 100 Balham High Road, S.W.; 260 Streatham High Road, S.W. When a similar application was made before the Bench at a previous sitting, the chairman, with the approval of his colleagues, held that in the case of medicated wine a proposed purchaser should present a medical certificate written not more than twelve months previously. Mr. Whiteley now said that Parke's Drug Stores, Ltd., were, as the Bench knew, a well-known company of chemists with a large number of branches carrying on a retail business in London and in the suburbs. In respect of twenty-five of those branches, they held, and had held for a large number of years, licences for the sale of wine to be consumed off the premises. Of those twenty-five licences five were held in the division under the jurisdiction of the Newington justices, and the oldest was granted thirty years ago. These five licences had been renewed without complaint ever since they had been granted by the Bench. A resolution had been passed by the company authorising Mr. Salthouse to hold these licences, and every other Bench had acceded to the transfer. At the February meeting of the Newington magistrates the Bench required an undertaking from Mr. Salthouse that no wine would be sold under his licence except with a doctor's certificate. The Chairman: No medicated wine.

AN INSTRUCTIVE DISCUSSION

Mr. Whiteley held that the licences entitled the holder to sell wine of any description to be consumed off the premises. The Chairman: And we told the applicant on the last occasion that he would not be allowed to sell medicated wine except upon a doctor's prescription of not more than twelve months' standing. The Clerk: He can sell other wine; but if he sells medicated wine he must have a certificate. Mr. Whiteley: Then I understand that you want an undertaking to be given by the holder of the licence that if medicated wine is applied for in Parke's Drug Stores there must be a medical certificate. The Chairman: Not more than twelve months old. Counsel said the matter had been very carefully considered by the company, and they could not see their way to give any such undertaking. They had not been asked to give it in any other division. "They have carried on this business for all these years," added Mr. Whiteley, "and it is impossible for the holder of the licences to give any undertaking that there should be a production of a medical certificate. This is the day on which we were asked to apply for our transfers and our renewals, and therefore I formally make the application." A Magistrate: You are not the first person to ask for it. It is not a new restriction that has been laid down. Mr. Whiteley: Certainly it is not original. Let the law be fair. We are not here to apply for a new licence. The Chairman: You are applying for a transfer. Mr. Whiteley: And renewal; and we are entitled to a renewal. The Chairman: And we are entitled to refuse it if we like. Mr. Whiteley: I do not wish to catch the Bench, and if there is any question of refusal there are certain grounds on which you cannot do so. I do not wish to go to the High Court. A Magistrate: You do not say that as a threat? Mr. Whiteley: I say you would not be doing right to refuse these applications. The Chairman: We want to do everything that is right, and we want to give you the opportunity of saying everything that is necessary. Counsel proceeded to argue that the Bench by the present applications for transfer got what was known as complete discretion, and that discretion must be exercised according to the provisions of Section 16 of the Act. On the first day of the annual licensing meeting of the Bench he (counsel) was entitled to the renewal of his licences, and entitled

also to the transfers. Under the decision of *Symons v. Waymore*, a tenant was entitled to renewal unless notice was served upon him, and therefore he (counsel) was entitled to a transfer and a renewal. Judges in the High Court had stated over and over again that, before bringing anyone to court on their renewal to which they were entitled, the ground must be stated on which objection was raised to the renewal of the licence. No ground in the present case had been stated from beginning to end. The Clerk: It does not say in writing. Mr. Whiteley: I agree absolutely. We have never had in open court any ground stated to us as to why these renewals were refused. Moreover, the Bench could not refuse the renewal of the licence on the ground that it was not required, because no evidence has been given. Before the magistrates could refuse the renewal of any licence, evidence must be given on oath, and that has not been done.

The Bench, after retiring to consider their decision, granted the application.

At Llangollen Licensing Sessions, on March 6, Sir Leonard Rowland, chemist and druggist, when applying for a wine off-licence for a branch at Chirk, mentioned an instance in which, no licence being held, a request for peptonised beef wine for a person *in extremis* had to be declined, and the patient died before it could be procured from Wrexham. The application was refused.

At Newington (London) Brewster Sessions, on March 6, Major Charles Bailey Thoms, a director of Brand & Co., Ltd., meat-essence manufacturers, 74 to 84 South Lambeth Road, S.W., applied, through his counsel, for a wine off-licence. The Chairman: Are you prepared to assent to a condition in your licence that you will not supply the article except upon a prescription not more than twelve months old?—Counsel: We are not. Major Thoms said that doctors would administer the liquid for which the licence was required, principally after operations. There would be little demand for it by the public generally. On the suggestion of the chairman, it was decided to confer with the clerk of the court to prepare certain stipulations.

Coming Events

This section of the "C. & D." is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Tuesday, March 14

Ealing Pharmacists' Association, Eden's Restaurant, High Street, at 8.30 p.m. Mr. Booth (managing director of A. & F. Pears, Ltd.) on "Some Business Methods."

Wednesday, March 15

Birmingham Pharmaceutical Association, Imperial Hotel, at 8.30 p.m. Lantern lecture: "A Selection of Photographs in Natural Colours," by Mr. W. Partridge.

Edinburgh Chemists, Assistants, and Apprentices' Association, 36 York Place, at 8 p.m. Paper on "Einstein's Theory of Relativity," by Mr. J. Rutherford Hill. Mr. Eric Knott will also give an address.

Liverpool Chemists' Association, Mr. H. O. Lloyd (member of the Pharmaceutical Council) on "Education and Organisation in Pharmacy."

London (Western) Pharmacists' Association, Pinoli's Restaurant, Wardour Street, W. 1, at 8.00 p.m. Addresses by Mr. G. A. Mallinson, Secretary of the Retail Pharmacists' Union, on "Chemists' Stocktaking," and by Mr. Wright, Consulting Accountant to the R.P.U., on "Bookkeeping."

Manchester Pharmacists' Masonic Association, Victoria Hotel. Ladies' evening (dinner and whist-drive). Reception at 6 p.m. Tickets (10s. 6d. each) from the Hon. Secretary, Bro. A. Newton, 20 Salisbury Drive, Prestwich, Manchester. Evening dress.

Thursday, March 16

Federation of Ucalites (London Branch), Hotel Cecil, Strand, W.C. Annual dinner at 7 p.m. Reception at 6.30 p.m. Tickets (10s. 6d. each) from Mr. G. W. Evans, Secretary. Evening dress optional.

LONDON CHEMISTS' GOLFING SOCIETY.—The annual dinner will be held at the Cohnaught Rooms, Great Queen Street, on March 23, at 6.30 p.m. Mr. T. E. Lescher, O.B.E., in the chair. Tickets (12s. 6d. each) from the Hon. Secretary, Mr. G. F. Deeth. Ladies invited.

THE NEWCASTLE-UPON-TYNE PHARMACISTS' ASSOCIATION.—The whist-drive has been abandoned in favour of a dinner, to be held in the County Hotel, Neville Street, on March 22, at 6 p.m. Tickets (8s. 6d. each) from any member of the Committee. Evening dress optional.

Chemists' and Druggists' Society of Ireland

Annual Meeting

THE annual meeting of the Chemists' and Druggists' Society of Ireland was held on February 15 in the Society's rooms, 11 Waring Street, Belfast, the President (Mr. Fred Storey) in the chair. Among those present were: Messrs. S. Gibson, C. Abernethy, J. Frackelton, S. Nevin, Wm. Lyttle, J. Guthrie, George Johnson, J. Long, E. Roberts, T. Unsworth (Ballynahinch), S. Haydock, T. Sandford (Newtownards), H. Holmes, J. Macauley, W. J. Rankin, and W. E. Wilson. Apologies were received from Messrs. R. Spence, J.P. (Castleblaney), and F. T. Smith, J.P. (Antrim). Mr. W. E. Wilson, joint hon. secretary, submitted his report, in which he said that the membership has been further increased. During the year, in addition to the President, who has been a member of the Pharmaceutical Council for some time, Mr. S. Suffern was elected to that body by a good majority. These representatives are two very active and energetic men, who may be relied upon to look after chemists' and druggists' interests. With regard to the position of the Pharmaceutical Council, this is a difficult matter. The question is, Will the Pharmaceutical Council have jurisdiction in the Northern Area? He outlined the steps undertaken to have the Dangerous Drugs Act modified, as a result of which efforts the authorities made concessions for the sale of laudanum. Mr. Frackelton still continues to look after the advertising of the rooms, and thanks are tendered to him for the interest he takes. There has been a large number of committee meetings held; the Law Committee had to be frequently called during the year in connection with the Dangerous Drugs Act. Upon these committees the responsibility lies of carrying on the work. It would facilitate and help the officials of the Society if members of the various committees would make it a point of attending. Mr. Samuel Gibson, J.P. (hon. treasurer), submitted the annual report, which was satisfactory. The President, in moving the adoption of the report and statement of accounts, said that if there was not going to be a fusion of the Northern Parliament and the Free State, and if both bodies functioned, there was no alternative but to set up a separate Pharmaceutical Council for the North. The only benefit accruing from this would be that the old out-of-date Pharmacy Laws would be scrapped, and a more up-to-date and more strict Pharmacy Bill be introduced. He believed eventually there would be a fusion of those two bodies, and it behooved them to keep this in view. The question of stopping the qualification of registered druggists had been brought forward during the past year; but how should it be done so as to satisfy not only the registered druggists but the pharmaceutical chemists? The registered druggist had a vested right which would not be taken away from him without his consent, and he was willing to meet the pharmaceutical chemist if given some form of Modified examination so as to enable him to dispense prescriptions. It was impossible and unreasonable to ask a registered druggist who had been in business for a number of years to take up the full pharmaceutical examination. A deputation would be sent to wait upon their pharmaceutical friends and see if this would not get a common ground from which to start. In view of statements made in the House of Commons, what was the position of a druggist? He could mix or sell poisons, and he could compound and dispense a qualified veterinary surgeon's prescriptions; he could compound and dispense qualified dentists' prescriptions. According to the legal advisers of the British Government, he can sell a medical prescription but not compound it. The matter would have to be settled by a test case, and as he was sure the Pharmaceutical Council would not agree to that, it is for them to say whether they thought it worth while to fight a case if it comes to that; if so, they would have to set up a guarantee fund. Mr. Roberts, in seconding, said they

would have to depend on themselves for whatever legislation they wanted. Mr. Guthrie asked if Dublin had any functioning powers in the North. The President believed the Pharmaceutical Society had still executive power. Mr. Gibson said that the better way would be to get fresh legislation. Prolonged discussion ensued regarding the position of druggists as raised by the President, and eventually the report was adopted. Mr. W. J. Rankin submitted the report of the Haslett Medal Committee for the highest marks at the Registered Druggists' examination. The winner was Mr. W. J. McKee, who had been apprenticed with Mr. Macauley, of Hollywood Road. Mr. Storey presented the medal to Mr. McKee, and hoped that in future years he would be an active member of the Chemists' and Druggists' Society of Ireland.

ELECTION OF OFFICERS

Mr. W. E. Wilson proposed the re-election of Mr. Storey as President for the ensuing year, and Mr. Gibson seconded the motion, eulogising Mr. Storey's services to the trade. The report gave but an inadequate idea of his services during the past year, especially in connection with the Dangerous Drugs Act. The resolution was put to the meeting by Mr. W. J. Rankin, and passed by acclamation. Mr. Storey, in reply, said he appreciated the unusual honour of receiving the position for a third year. On the motion of Mr. Wilson, seconded by Mr. Nevin, Messrs. F. T. Smith, J.P. (Antrim), J. Moffett, T. Sandford (Newtownards), and J. E. O'Neill, J.P. (Maghera), were re-elected Vice-Presidents. The President moved the reappointment of Mr. W. E. Wilson and Mr. W. J. Rankin as hon. secretaries. Mr. Frackelton seconded the motion, which was passed. Mr. Macauley moved, and Mr. Frackelton seconded, the re-election of Mr. Samuel Gibson, J.P., as hon. treasurer. The following Committee was elected: E. J. Roberts, W. J. Gibson, J. Frackelton, J. D. Carse, W. Martin, S. Nevin, R. A. Jamison, J. Long, J. Macauley, T. J. Eglinton, C. Abernethy, G. Johnson, R. Kells, J. F. Grimes, J.P., J. Guthrie, J. A. McRoberts, S. Haydock, W. T. Gordon, J. Walsh, H. Holmes, A. W. Stevenson. A letter of sympathy was directed to be sent to Mr. J. D. Carse on his serious illness. The President said he was glad to announce that Mr. Carse was improving. The question of the Saturday half-holiday was brought up. Several members thought it would not be feasible in working-class districts. It was decided to leave the matter to the Ulster Retail Drug Trade Association.

Mr. Wilson said the Assistants' Association would shortly apply for a Saturday half-holiday.

TUNISIAN OLIVE OIL.—It is reported from Tunis that the large olive-garden proprietors in the Sfax region have at last decided to erect mills for the preparation of olive oil on their own estates, in order to avoid passing the oil through so many intermediaries, who obtain the greater part of the profit.

JAVA COCAINE FACTORY.—On December 27, the Tjipellang Java Cocaine Factory at Sukabumi was sold publicly, and acquired by the firm of Geo. Wehry for the sum of 26,000 florins (a Chinaman bid 25,000 florins). Some time ago the agricultural association of Sukabumi had evinced considerable interest in this undertaking, and when the factory was on the point of shutting down owing to want of capital, a reconstruction was effected with the assistance of the firm of Geo. Wehry, which in return for advancing the money necessary to carry out a number of improvements was granted a mortgage on the property. One of the reasons for assuming that the factory would prove a profitable undertaking was the good demand from Japan. However, when the plant was at last in working order, and many difficulties had been overcome, the output was destroyed by fire. The debts amounted to 70,000 florins, and finally the firm of Geo. Wehry decided to liquidate the undertaking. The small interest taken in the sale of this factory is due to the absence of capital during the present depression; the new owners do not propose for the present to resume operations in this factory.

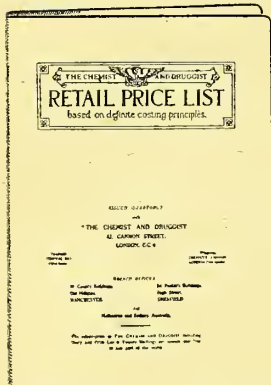
THE CHEMIST AND DRUGGIST

RETAIL PRICE LIST

based on definite costing principles

THE NEXT LIST

We shall publish the next Retail Price List in our issue of April 8. The List will be enlarged so as to give us space to include many more chemicals and drugs which are sold retail or used in dispensing. We have received a number of useful suggestions for improving the List, and we shall carry out these as they are practicable and are consistent with the scientific basis upon which the Retail Price List is devised.



FILING COVERS

The convenience of having a filing cover for the preservation of the Retail Price List will be appreciated by all users of the list. The filing cover which we have had made specially for the purpose is of stout cardboard with cords, so that the list can be firmly held in the cover. We can supply these filing covers at 1s. each, post free. Postal order or stamps should accompany orders.

CHANGES IN PRICES

We shall be glad if users will make the following alterations in the January list:

- Glyc. acetomorph.*: Cost—2s. 6d. lb. Sell—1s. 4d. 4 oz.; 5d. oz.
Glyc. ac. carbol.: Cost—2s. 8d. lb. Sell—1s. 5d. 4 oz.; 5d. oz.
Glyc. ac. gallic.: Cost—4s. 3d. lb. Sell—2s. 3d. 4 oz.; 7½d. oz.
Glyc. glycerophos. co.: Cost—4s. lb. Sell—2s. 1d. 4 oz.; 7d. oz.
Glyc. pepsin.: Cost—5s. 3d. lb. Sell—2s. 9d. 4 oz.; 9d. oz.
Glyc. thymol. co.: Cost—1s. 2d. lb. Sell—1s. 10½d. lb.; 7d. 4 oz.; 2d. oz.
Guaiaci resin. pulv.: Cost—8s. 2d. lb. Sell—3s. 6d. 4 oz.; 1s. oz.; 2d. dr.
Guaiacol carb.: Cost—1s. 6d. oz. Sell—2s. 3d. oz.; 5d. dr.
Hexamina: Cost—6½d. oz. Sell—9d. oz.; 2d. dr.
Ichthyocoll. Braz. incis.: Cost—10s. lb. Sell—4s. 3d. 4 oz.; 1s. 2d. oz.; 2d. dr.
Inf. aurant. conc. (1 to 7): Cost—3s. 2d. lb. Sell—1s. 5d. 4 oz.; 5d. oz.
Inf. aurant. co. conc. (1 to 7): Cost—3s. 2d. lb. Sell—1s. 5d. 4 oz.; 5d. oz.
Inf. caryoph. conc. (1 to 7): Cost—2s. 8d. lb. Sell—1s. 2d. 4 oz.; 4d. oz.
Inf. cascarilla conc. (1 to 7): Cost—3s. 10d. lb. Sell—1s. 8d. 4 oz.; 6d. oz.
Inf. digitalis conc. (1 to 7): Cost—2s. 4d. lb. Sell—1s. 4 oz.; 3½d. oz.
Inf. lupuli conc. (1 to 7): Cost—4s. 3d. lb. Sell—1s. 10d. 4 oz.; 6d. oz.
Inf. krameria conc. (1 to 7): Cost—3s. lb. Sell—1s. 4d. 4 oz.; 5d. oz.
Inf. senegæ conc. (1 to 7): Cost—5s. 8d. lb. Sell—2s. 5d. 4 oz.; 8d. oz.
Inf. scnnæ conc. (1 to 7): Cost—3s. lb. Sell—1s. 4d. 4 oz.; 5d. oz.

- Ipecac. rad. (Rio) pulv.*: Cost—13s. 4d. lb. Sell—5s. 8d. 4 oz.; 1s. 6d. oz.; 3d. dr.
Iridis rad. flor. pulv.: Cost—1s. 11d. lb. Sell—2s. 10d. lb.; 10½d. 4 oz.; 3d. oz.
Jalap. resin. pulv.: Cost—3s. 8d. oz. Sell—5s. 6d. oz.; 1s. 1d. dr.
Kieselguhr (grey): Cost—6d. lb. Sell—9d. lb.; 3d. 4 oz.; 1d. oz.
Lin. ammon.: Cost—2s. 8d. lb. Sell—1s. 2d. 4 oz.; 4d. oz.
Lin. bellad.: Cost—10s. lb. Sell—3s. 10½d. 4 oz.; 1s. oz.; 2d. dr.
Lin. bellad. meth.: Cost—5s. 3d. lb. Sell—2s. 1d. 4 oz.; 7d. oz.
Lin. methyl sal.: Cost—6s. 2d. lb. Sell—2s. 6d. 4 oz.; 8d. oz.
Lin. methyl sal. co.: Cost—8s. 2d. lb. Sell—3s. 2d. 4 oz.; 10d. oz.
Lin. potass. iod. c. sap.: Cost—4s. 3d. lb. Sell—6s. 5d. lb.; 1s. 10½d. 4 oz.; 6d. oz.
Lin. saponis: Cost—5s. 8d. lb. Sell—2s. 3d. 4 oz.; 7d. oz.
Liq. ammon. acet. conc. (1 to 7): Cost—1s. 7d. lb. Sell—9d. 4 oz.; 3d. oz.
Liq. ferri albumin.: Cost—4s. 9d. lb. Sell—2s. 1d. 4 oz.; 8d. oz.
Liq. formaldehydi: Cost—1s. 7d. lb. Sell—2s. 7½d. lb.; 9d. 4 oz.; 3d. oz.
Liq. hamamelidis: Cost—2s. 1d. lb. Sell—3s. 2d. lb.; 10½d. 4 oz.; 3d. oz.
Liq. papain et iridin. B.P.C.: Cost—7s. 2d. lb. Sell—3s. 1d. 4 oz.; 10d. oz.; 2d. dr.
Liq. santal. co. B.P.C.: Cost—10s. 6d. lb. Sell—4s. 7d. 4 oz.; 1s. 3d. oz.
Lithii bromid.: Cost—1s. 7d. oz. Sell—2s. 3d. oz.; 6d. dr.
Methylsulphonat: Cost—2s. 2d. oz. Sell—3s. 3d. oz.; 8d. dr.
Ol. amygd. Ang. ess.: Cost—4s. 3d. oz. Sell—6s. 5d. oz.; 1s. 3d. dr.
Ol. bergamot.: Cost—2s. 8d. oz. Sell—4s. oz.; 9d. dr.
Ol. caryophylli: Cost—18s. 6d. lb. Sell—8s. 4. oz.; 2s. 2d. oz.; 4d. dr.
Ol. citronella: Cost—4d. oz. Sell—6d. oz.
Ol. cocois nucif.: Cost—1s. 2d. lb. Sell—1s. 9d. lb.; 6½d. 4 oz.; 2d. oz.
Ol. eucalypti: Cost—3s. lb. Sell—4s. 6d. 16 oz.; 1s. 3½d. 4 oz.; 4d. oz.
Ol. menth. pip. redest.: Cost—21s. lb. Sell—8s. 4 oz.; 2s. 2d. oz.; 4d. dr.
Ol. rosmarin. Gall.: Cost—11s. 6d. lb. Sell—4s. 11d. 4 oz.; 1s. 4d. oz.; 3d. dr.
Ol. santal flav. Ang.: Cost—3s. 10d. oz. Sell—5s. 10d. oz.; 11d. dr.
Ol. santal flav. E.I.: Cost—3s. 6d. oz. Sell—5s. 3d. oz.; 10d. dr.
Ol. sassafras. nat.: Cost—12s. 4d. lb. Sell—5s. 3d. 4 oz.; 1s. 4d. oz.; 3d. dr.
Ol. scsami: Cost—1s. 6d. lb. Sell—2s. 2d. 16 oz.; 8d. 4 oz.; 2½d. oz.
Ol. succini rect.: Cost—2s. 5d. lb. Sell—1s. 1d. 4 oz.; 4d. oz.
Ol. theobrom.: Cost—3s. 2d. lb. Sell—4s. 9d. lb.; 1s. 4d. 4 oz.; 5d. oz.
Ol. thymi rub.: Cost—19s. lb. Sell—8s. 1d. 4 oz.; 2s. 3d. oz.; 4d. dr.
Papain: Cost—3s. 4d. oz. Sell—5s. oz.; 1s. dr.
Paraldehyd.: Cost 3s. 2d. lb. Sell—1s. 4d. 4 oz.; 4½d. oz.
Pepsin porci: Cost—3s. 2d. oz. Sell—4s. 9d. oz.; 1s. dr.
Phenazon. salicyl.: Cost—1s. 7d. oz. Sell—2s. 4d. oz.; 6d. dr.
Potas. acet. gran.: Cost—2s. 6d. lb. Sell—3s. 9d. lb.; 1s. 1d. 4 oz.; 4d. oz.
Pot. benz. nat.: Cost—2s. 6d. oz. Sell—3s. 9d. oz.; 9d. dr.
Pot. metasulph.: Cost—1s. 11d. lb. Sell—3s. lb.; 9d. 4 oz.; 2½d. oz.
Pot. nit. pur.: Cost—1s. 5d. lb. Sell—2s. 1d. lb.; 7½d. 4 oz.; 2d. oz.

Birth

SMITH.—At 49 High Street, Brechin, on March 6, the wife of James Smith, chemist and druggist, of a daughter.

Marriages

BUCKLE—PALMER.—At St. Mary's Church, Thornbury, Bristol, on February 20, Sydney James Buckle, Ph.C., Torrington, eldest son of the late Mr. James Buckle, chemist and druggist, Malton, to Nina Irene Spencer Palmer, third daughter of Mr. J. Spencer Palmer, pharmacist and dental surgeon, Coronation House, Thornbury.

HICKS—JONES.—At St. Margaret's Church, Roath, Cardiff, on February 28, by the Rev. L. J. Wellington, Henry David, second son of Mr. C. H. Hicks, Romilly Road, to Alice Mary, eldest daughter of Mr. J. Lee Jones, chemist and druggist, 96 Albany Road.

PERRY—SEALE.—At St. Andrew's Church, Dublin, on February 28 (by special licence), by the Rev. R. A. Mollan, B.A., Belfast (nephew of the bride), assisted by the Rev. R. Northridge, M.A., rector, David Orr Perry, R.D. (Perry & Thompson, Ann Street, Belfast), to Muriel, daughter of the late Mr. George Seale, Ballycuddy House, Johnstown, co. Kilkenny.

Deaths

ANDERSON.—At 6 Gilburn Road, Downfield, Dundee, on March 2, Mr. John Anderson, chemist and druggist, 14 Strathmartine Road. Mr. Anderson, who was a native of North Queensferry, served his apprenticeship in Dunfermline, and after some experience at East Linton went to Dundee in 1875 as an assistant to the late Bailie D. H. Ferrier. He qualified in 1892, and was a partner with Mr. Ferrier till 1903, when he took over the business in Strathmartine Road. Mr. Anderson was an active member of the Forfarshire Chemists' Association, and served a term of office as its President; he was also a member of the Dundee U.F. Presbytery, and a keen bowler. Of his surviving family, a son is in business as a chemist at 87A Arbroath Road.

HOWARD.—At Portumna, on February 28, suddenly, Mr. Patrick Howard, representative of J. & G. Boyd, Ltd., manufacturing chemists, Limerick, for more than thirty years.

KANE.—On February 26, Mr. Michael Stanislaus Kane, R.D., O'Connell Street, Clonmel. Mr. Kane, who passed the Registered Druggist examination in 1900, had carried on business in Clonmel for several years past. Of a kind and unobtrusive disposition, he was held in high esteem. He leaves a widow and two children.

MOORE.—At Oxford, on March 3, suddenly, Mr. Benjamin Moore, F.R.S., professor of bio-chemistry in the University, aged fifty-five.

PARRY.—At a nursing home at Hove, on March 6, from shock following an operation, Leisa, beloved wife of Mr. W. P. Parry, chemist (Bartlett, Hooper & Co.), "Woodville," Inglemere Road, Forest Hill, and 56 Great Dover Street, London, S.E. The funeral was at Brompton Cemetery on March 9.

SHORTHOUSE.—At "The Retreat," Welford-on-Avon, recently, the wife of Mr. H. S. Shorthouse, chemist and druggist, managing director of Philip Harris & Co. (1913), Ltd., wholesale chemists, 144 and 146 Edmund Street, Birmingham.

WHITE.—At the Vicarage, Minster Lovell, on February 28, the widow of the late Mr. Charles W. White, F.R.G.S. (representative in India of several wholesale houses), who died in 1919. Mrs. White was interred at the Church of St. Mary and St. John, Cowley, Oxford, where her husband's funeral also took place.

Personalities

MISS A. GILLIATT, Ph.C., has been appointed chairman of the Housing Committee of the Fulham (London) Borough Council.

MR. T. H. PRICHARD, chemist and druggist, Abertillery, Blaenau, and Newbridge, has been elected a member of the Monmouthshire County Council.

MR. PHILIP F. ROWSELL, F.C.S., Mayor of Exeter, has been admitted an honorary member of the Loyal Isca Centenary Lodge of the Ancient Order of Druids.

At the recent inaugural meeting of the Leicester Chamber of Trade, pharmacists and their interests were represented by Mr. F. H. Clark, chemist and druggist.

MISS M. E. BUCHANAN asks us to convey her appreciation of the letters she has received conveying good wishes regarding her visit to Canada (*C. & D.*, March 4, p. 65).

MR. ROLFE CHURCHYARD, eldest son of Mr. A. E. Churchyard, Ph.C., Harleston, has passed the Final examination for the degree of L.D.S. of the Royal College of Surgeons of England.

MR. E. T. NEATHERCOAT, J.P., President of the Pharmaceutical Society of Great Britain, was an unsuccessful candidate for the Weybridge division at the recent election for the Surrey County Council.

MESSRS. PERCY CHARLES UPSON and ALFRED ROBERT MATCHAM, having produced the necessary diplomas to the Royal Court of Jersey, have been granted leave to practise as chemists and druggists in the island.

MR. ISAAC T. LLOYD, chemist and druggist, 26 King's Road, Chelsea, London, S.W. 3, has been elected President of the Chelsea Traders' Association, and has also been appointed vice-chairman of the Chelsea (Group No. 2) L.C.C. school managers.

PROFESSOR F. L. PYMAN, D.Sc., Ph.D., F.I.C., was the guest of the research students of the chemistry department, College of Technology, Manchester, on March 2, when a dinner was given in honour of his election to the Fellowship of the Royal Society.

DE LUZY (Paris), 3 London Wall Avenue, London, E.C. 2, have appointed the following representatives: London, Mr. A. E. Barnett; southern portion of England with Wales, Mr. H. Wilks; northern portion of England with Scotland, Mr. C. H. Moon; Ireland, Mr. D. L. Kirkpatrick.

MR. W. J. WILLIAMS, A.C.I.S., chemist and druggist, who will be well remembered by many as the enthusiastic assistant local secretary of the Liverpool meeting of the British Pharmaceutical Conference, 1920, has joined Banks & Dalrymple, wholesale chemists, North Hill Street, Liverpool, and will represent that firm in the Liverpool area. Mr. Williams was previously engaged with Evans Sons Lescher & Webb, Ltd., Liverpool, for nearly twenty-five years, and was latterly connected with their druggists' sundries department.

MR. WILLIAM SHADFORTH, Ph.C., managing director of the Shadforth Prescription Service, Ltd., Grove Road, Bow, and King William Street, London, E.C. 4, was returned for North-East Bethnal Green at the election of the London County Council on March 2. The poll was a heavy one, and owing to the withdrawal of a candidate Mr. Shadforth and his successful colleague, Mr. Bonham Carter, had a straight fight against two opponents. Mr. Shadforth was a member of the Bethnal Green Borough Council for six years.

M. LUCIEN VILLE, pharmacist at the asylum of Clermont (Oise), who was awarded a Monthyon prize of 2,500frs. by the Academy of Sciences for his work on asphyxiating gases, has not lived to enjoy his honours. His death recently was the result of studying gases during the war. He was the head of Professor Delepine's laboratory at the Paris Faculty of Pharmacy. M. Jean Pougnet, pharmacist at Beaulieu-sur-Dordogne, receives 1,500fr. and an honourable mention for similar work from the same foundation.

Trade Notes

SPRING MEDICINES.—The Cooper Laboratory, Watford, suggest three useful lines as special medicines for sale in the spring time.

ROBINSON & SONS, LTD., Chesterfield, and 168 Old Street, London, E.C. 1, announce reduced prices for Mene sanitary towels.

OATINE SNOW.—A special system of distributing free samples of Oatine Snow is explained in the advertisement of the Oatine Co., Oatine Buildings, Borough, London, S.E. 1.

PACIFIC PAIN BALM is a new analgesic cream put on the market by W. B. Cartwright, Ltd., Rawdon, Leeds. Particulars are given in an advertisement in this number.

ROLO FLY-CATCHER.—Stonehouse Bros., High Street, Old Basford, Nottingham, invite chemists to send for samples and prices of the Rolo fly-catcher, which sells at 1d. and 1½d.

SOUTHALL'S SANITARY TOWELS are reduced in price as from March 11. The new retail prices are given in the advertisement in this issue of Southall Bros. & Barclay, Ltd., Birmingham.

JOHN BELL, HILLS & LUCAS, LTD., wholesale druggists, Oxford Works, Tower Bridge Road, London, S.E. 1, make an interesting announcement regarding the origin of the company, with a view of removing confusion that has arisen in the trade.

CEPHOS, a remedy for headache, rheumatism, etc., is referred to in this issue. The trade terms are given for the supply by the makers, Cephos, Ltd., Blackburn, or distributing agents (outside Lancashire and Yorkshire), Thos. Christy & Co., 4, 10, and 12 Old Swan Lane, London, E.C. 4.

CIRENGOL POSTER.—Thos. Christy & Co., 4, 10, and 12 Old Swan Lane, Upper Thames Street, London, E.C. 4, have produced a new poster for the purpose of advertising Cirengol, the preparation for killing green fly. It is an effective poster, and should attract professional and amateur gardeners.

SIMPLIC SOOTHER.—An illustration is given in our advertising pages of the Simplic soother, an all-rubber article. Each soother is packed separately in a carton, a novel packing which will appeal to the public for several reasons. The Simplic soother is supplied by wholesale dealers in druggists' sundries.

MR. K. B. MAVLANKAR, 26-27 Hatton Garden, London, E.C.; has issued a new price list of essential oils and aromatic and synthetic chemicals, the latter being a representative list of the articles manufactured by Polak & Schwarz, Ltd., Zaandam, Holland, for whom Mr. Mavlankar is sole agent in the United Kingdom.

NEW COD-LIVER OIL.—Allen & Hanburys, Ltd., 37 Lombard Street, London, E.C. 3, send us a sample of the new season's cod-liver oil from their factory at Lofoten, Norway. It possesses the minimum of colour, odour, and taste, while the chemical data as follows, supplied by Allen & Hanburys, show the oil to be specially good:

	A. & H. Oil	B.P. Standards
Acid value	0.45	2.5 (max.)
Saponification value	185	179-192
Iodine absorption value	167	155-173
Unsataponifiable matter	0.67	Not more than 1.5

SPONGES.—During the past few days a *C. & D.* representative has had the opportunity of seeing the London stock in sponges of the Chiapas Compagnie Commerciale d'Outremer, the office of which is at 32 Queen Victoria Street, E.C. 4. The experience was an entirely pleasurable one, not only on account of the extent and variety of the stock itself, but also because of the evenness of the quality and the perfection of the packing. Case after case was opened at random, and sponges were promiscuously taken from various layers, with the result that it was impossible to detect either a flabby or a leathery intruder. This result, we gather, is due to judicious selection made in practically all the markets of the world, and we are not surprised to learn that the Chiapas Compagnie is constantly extending its scope in this department.

A HALF-SIZE IN "ENO."—To enlarge one's office accommodation and, at the same time, find a new public is one of those happy inspirations that come but seldom in actual experience. The double event has just been brought about by J. C. Eno, Ltd., in introducing a half-size of Fruit Salt and removing their offices, simultaneously, to Central Buildings, at the City end of Victoria Embankment, E.C. Commanding a view of London's waterway from the Tower Bridge to the Houses of Parliament, the spacious offices are equipped and furnished in a style worthy of their dignified position; and a member of the *C. & D.* editorial staff who called, the other day, for the purpose of learning about the new size reflected that here was a delightful place to work in. The "handy" size, as it has been christened, holds four ounces by weight and sells at 1s. 9d.; like its elder companion, it is "P.A.T.A.," and (as will be seen from our advertisement columns) is launched with special window-display terms, inclusive of free cases. New material for counter-display, including a container, has been devised; the profits to the retailer have been increased; and, a few days hence, an extensive advertising campaign is being opened. One can easily see whence the new public for this size is likely to be drawn. The consumer of a relatively cheap saline will be able to read about "Eno" in his paper—in which, probably, the larger size has seldom or never been advertised—and will find that the price is not far above that which he usually pays. The week-end visitor, too, and the man who wants to keep a little Fruit Salt at his office will find the new size convenient. The air-proof screw top, with its rubber lining, is a triumph over mechanical difficulties; and a detail like this reminds us of the reputation that the proprietors of "Eno" have always had for using the best of everything. It is worth bearing in mind, by the way, that "saline" is not a synonym for "Fruit Salt," which, as well as "Eno," has been registered by the company as a trade-mark: this is one of several instances in which the doctrine of *caveat emptor* does not quite meet the situation. We learn that a circular giving full particulars of the "handy" size has been posted to every retail chemist in the United Kingdom.

Business Changes

A. & N. CATTO, LTD., chemists, Ilford and Stratford, have purchased the business of Mr. J. H. Gradidge, Ph.C., 393 Mile End Road, London, E. 3, who is retiring after being there for thirty-five years.

CASSIE & Co., wholesale and retail chemists and proprietors of Dr. Horn's preparations for the hair, have removed, owing to expiration of lease, from 49 to 103 Newgate Street, London, E.C. 1. Messrs. Cassie's is one of the oldest retail businesses in the City, having been established nearly sixty years.

MR. JOHN GEORGE HALLER, Mildmay Chambers, 69 Bishopsgate, London, E.C. 2, announces that he has converted his business into a private limited company. Mr. George Walter Phillips, who has been associated with the business for many years, will be managing director, and the style of the company will be Haller & Phillips, Ltd. Mr. John George Haller will act as chairman of the company.

Information Department

INFORMATION WANTED

D/272. Buxton's soda bic.	S/33. "Iodermol"
S/43. Herosine or thercacine (arsenical preparations)	B/83. "Kowsaly" (vet.)
R/83. "Moline" (for obesity)	H/13. Non-inflammable celluloid material in thin sheets suitable for making up into chest-protectors
E/83. Gibson's mice poison	N/33. Ol. betulae arb. rect. (supplies)
H/83. 3-dr. capsules carbon bisulphide for "Bots" in horses	C/63. "Vaast" atomisers

INFORMATION SUPPLIED

Andrew's liver salts, S/63	Campbell's alkali wash, E/252
"Ayvad's water wings, S/43	Chip ointment boxes, M/13
Bitrate of tar, T/43	Colles' fracture splints, S/63

Observations and Reflections

By Xrayser II.

The British Pharmaceutical Conference

held its first meeting (chiefly for the purpose of organising itself) on September 2, 1863, and its diamond jubilee will therefore occur in the autumn of next year. The meeting was called at the instance of the Pharmaceutical Society, mainly at that of its younger and least conservative members, and its constitution was intended to be as liberal and catholic as possible. Many non-pharmaceutists were present at this first meeting, and, in reply to a direct question, the secretary declared that membership was not to be confined to members of the Society, but was to include "all chemists and druggists who desired to promote pharmaceutical science," while the desire generally expressed was to admit all who were interested in the advancement of pharmacy, "whether they were chemists, druggists, physicians, herbalists, or drug-grinders." Nevertheless, the first officials were all connected with the Society, and some jealousy and opposition was aroused by this fact. It was alleged that the Conference was merely a device to extend the influence of the Society and advance its interests. In combating this view the *C. & D.*, which from the first warmly supported the Conference, said (October 1863): "When we find that the liberal constitution of the British Pharmaceutical Conference is nullified by the acts of its officers or members, it will be time enough to adopt the [se] views . . . and to alter our tactics." It may be a kindness to call the attention of the Society to this bit of history.

Mr. Neathercoat,

in his speech at the West Ham dinner, touched on several weighty topics, but said nothing important about any of them. He forgot, apparently, in speaking of the acceptance of the Society's organisation scheme by the associations, that before it was accepted it had been radically altered. He did not make it plain how the system of branches would affect the dilution of the qualification, nor did he remind his hearers that the only dilution of the qualification to which we have had to submit was submitted to only because of pressure from headquarters. Did he mean that with branches in every association such pressure would be more speedily effective or less easily resisted? Either thought may have been at the back of his mind, or (for that matter) neither; he may have been talking for talking's sake. Is there going to be "a fight for the qualification"? If so, I agree that, judging from past history, the Society needs all the help it can get from the associations; but whether the making of them into branches will increase their helpfulness I gravely doubt.

Festivities

appear to be the order of the day, and the three dinners reported last week show that London pharmacists, at any rate, are, like John Gilpin, "in merry pin." Mr. Linstead's eulogy of the Society appears to have been "amusing" mainly by its extravagance, which eulogies are naturally inclined to be. That the activities of the Society are not better known is the Society's own fault; why does it give us such meagre reports of its meetings and conduct so much of its business *in camera*? It can hardly be that it does good by stealth and blushes to find it fame, for members of the Council rarely get on their legs without exuding somewhat similar eulogies of their corporate, if not of their individual, virtue. As a body, nevertheless, the Council, if we may judge from what we are told of its meetings, appears to have very little to do, and one wonders whether its desire to annex the British Pharmaceutical Conference to the Society is not another proof that "Satan finds some mischief still for idle hands to do." That, however, is another story. The eulogies passed on Miss Buchanan at the dinner given in her honour were well deserved, and should strengthen her hands in the mission with which she is charged, and in which we all heartily wish her success. Ladies may not be the "talkative sex," but Miss Buchanan is a living proof that they can talk to some purpose, and

act too. Luther's words are said to have been half-battles; we have all known ladies who could go one better than that. Miss Buchanan, however, wins her victories by persuasion rather than by invective, and those who, like Mr. Keith, sit nearest to her are most under her spell.

The Definition

of a chemical substance put forth by the Newcastle section of the Society of Chemical Industry is unsatisfactory for two reasons. It depends upon the definition of the word "chemical" itself, which is not attempted, and is indeed said to be impossible, and it is so badly worded that any fifth-standard schoolboy who was guilty of it would deserve the cane: "A chemical substance is a substance both made by and used to produce a chemical change which is not a naturally occurring ore or mineral, and which may be a plant or animal substance." What is the antecedent to "which" in this sentence? Grammatically construed, "change" would be; logically, "substance" is. What was intended is, I suppose, this: "A chemical substance is a substance which is not a naturally occurring ore or mineral, but may be a plant or animal substance, both made by and used to produce a chemical change." Even when so inverted the sentence is awkward, and the lack of a definition of "chemical" leaves the definition vague. The other definitions you quote from the same "Daniel come to judgment" are also open to criticism on the latter ground.

"The Roaring Moon

of daffodil and crocus," as Tennyson calls March, came in like a lion, a little in advance of his retinue of flowers, for though the crocus was in flower in some gardens and other favoured spots, very few of the yellow spring crocuses which I am accustomed to look for in certain places near me showed any colour on the first of the month. Snowdrops in my neighbourhood are exceptionally backward this year. They ought to flower early in January, and February 2 is their feast-day, but I did not see a single flower in the open until the last days of February, though I looked for them diligently. I had, however, a few sent me early in January that had been gathered in the open in Ayrshire. Neither the snowdrop nor the spring crocus appears to be a native of our island. Both Lyte and Gerard call the snowdrop "bulbous violet" (a name that clung to it in books till late in the eighteenth century); but Gerard adds, "Some do call them also Snow drops"—the earliest occurrence of the name I know, much earlier than any in the Oxford Dictionary. He says they grow wild in Italy, but have been "taken possession of" by London gardeners many years past. Of the yellow spring crocus, he says it "was sent unto me from Robinus of Paris, that painfull and most curious searcher of Simples." A simple, however, it is not, for neither it nor the snowdrop has any place in medicine. Neither of them, it may be added, is mentioned by Shakespeare.

The Initials "M.P.S.,"

for the privilege of using which we have to pay a guinea and a-half per annum, are, it appears, of no significance in the eye of the law, but, contrariwise, a source of embarrassment and additional expense in legal proceedings. A pharmacist of my acquaintance had recently to prove a will, and to this end made an affidavit before a solicitor in town, in which he described himself as "M.P.S." A few days later he received a letter from the solicitor saying that the officials at Somerset House refused to recognise this title, and that he must make another affidavit, which, of course, involved another journey to town and another interview with the solicitor. Had my friend used the humbler title of "chemist and druggist" he would have avoided this duplication of expenses, and he is, not unnaturally, a little sore about it. I have looked up "M.P.S." in a work of reference, and find that the only explanation given is "Member of the Philological Society." Another friend who recently suggested that the Society very badly needs a publicity department is evidently not far wrong.

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JELLIES

Pharmacy Regulations in Spain

ONCE again a Royal Decree has been signed, designed to remove one of the many abuses which in the course of time have crept into Spanish pharmacy and are largely responsible for the loss of dignity which members

of the profession have suffered in the eyes of the public. The new decree, dated February 20, 1922, begins by quoting Article 9 of the Ordinances on pharmacy, which requires that a pharmacist shall dwell in the house in which his business is situated, shall superintend personally all work done in the laboratory, make up himself, or have made up under his immediate responsibility, all prescriptions, and keep in his possession the key of the cupboard containing poisons and heroic drugs. "This wise provision was intended to provide that all the professional duties shall be exercised by the pharmacist personally, or under his direct supervision, and not left to other persons not holding the same qualifications. The non-observance of this precept has led to various abuses, inasmuch as incompetent persons have been allowed to prepare and dispense prescriptions with grave prejudice to the public health." In order to secure strict compliance with the above provision, it is now required that the pharmacist shall inscribe in a special register, previously numbered and signed by the sub-delegate of pharmacy, every prescription he dispenses in the exact form as prescribed, together with the name and qualification of the prescriber. At the same time, there shall be copied on the label of the container of the medicine issued to the patient the serial number of the prescription, the name of the prescriber, and the names of the principal ingredients of the medicine. It is expressly forbidden to employ signs or conventional expressions designed to veil the composition of the medicine, or merely to indicate the entry number of the prescription in the register. Every day, after entering the last prescription to be dispensed, the register shall be signed by the owner, or by the responsible pharmacist who for any reason assumes his duties. Prescriptions containing narcotics, anaesthetics, or any active substances shall be retained by the pharmacist, and a copy handed to the patient, duly signed by the pharmacist. Should the pharmacist find in a prescription any incompatible mixture, or a slip of the pen capable of ready interpretation, he shall nevertheless dispense the medicine, making such changes as may be dictated by his professional knowledge, informing afterwards privately the prescriber regarding the technical alterations carried out in his prescription. If the owner of a business is compelled to absent himself for justifiable reasons for more than one month, the pharmacist taking his place must report himself to the sub-delegate of pharmacy, and assume all the responsibilities which fall upon the owner. In cases of absence of less than a month's duration the pharmacist entrusted with the conduct of the business is also required to report to the sub-delegate, assuming full responsibility for the supervision and working of the pharmacy.

Dyestuffs (Import Regulation) Act

UNDER the Dyestuffs (Import Regulation) Act, which came into force some fifteen months ago, the importation of aniline dyes into the United Kingdom is prohibited except under licence. During this time complaints have been made by consumers and merchants regarding the methods adopted by the Dyestuffs Advisory Licensing Committee, the body set up by the Government to consider all applications for import licences to carry out the duties laid down in the Act. The chief points of the complaints are:

1. That the Licensing Committee demand from applicants for licences to import dyes, among other trade information, the name and address of their customers (the users of the

dyes), and details of the process in which they will be used.

2. That applicants for licences to import dyes not made in the United Kingdom are being continually referred to home sources of supply by the Licensing Committee with a suggestion that a named substitute should be used, and that licences to import are refused even when the consumer definitely states the suggested substitute is quite unsuitable and would have an adverse effect on the quality of the users' finished goods.

3. That some foreign dye-makers' agents in this country are permitted to import for stock, while others are only granted licences to import against definite orders in hand.

4. That the Dyestuffs Advisory Licensing Committee is not a properly balanced and representative committee.

The object of the Act is to safeguard and to foster the dye-making industry in this country for a period of five years by prohibiting the importation of all dyestuffs which are made in the United Kingdom in sufficient quantity to meet the demand and of a quality that would satisfy the consumers. The Licensing Committee, on taking up its duties, laid down certain rules for applicants for licences, among these being the disclosure by applicants of the name and address of the customer and the purpose for which the dye is required. It is difficult to understand how this information, as recently stated by the President of the Board of Trade in the House of Commons, assists the Licensing Committee to carry out their duties, or assists them in coming to a decision when considering an application. The Licensing Committee being mainly composed of representatives of British dye-makers and one or two large combinations of consumers, it can be understood that importing merchants and their customers mistrust that body, upon which their views are not represented. A manufacturer of finished goods may, after considerable expense, have perfected a process involving the use of a dye not made in the United Kingdom, and he naturally does not want to disclose the exact dye he uses. Before the war many users imported dyes under invented names, so that not even their workmen knew what the dye really was. Consumers and merchants appear to have a strong case for the withdrawal by the Licensing Committee of these disclosures. The second complaint is that the Licensing Committee are refusing to grant licences for the importation of dyes not made in the United Kingdom, and, while doing so, suggest that a home-made product of a similar kind should be used by the consumers. Specific instances of this treatment have recently been mentioned where the users have experimented with the suggested home-made dyes and have definitely stated that they are unsuitable for the purpose required. In such cases, however, the Licensing Committee have maintained their attitude of refusal. It would appear that in their anxiety to foster the dye industry at home the Licensing Committee are exceeding the scope of the Dyestuffs Act. To foster the dye industry of this country by a prohibition on importation of all dyes made in the United Kingdom in sufficient quantity and satisfactory quality is one thing; to foster it by inflicting injury on some of the staple exporting industries of this country by forcing them to use unsuitable dyes is another matter, entirely outside the scope of the Act as we read it. Mr. Baldwin recently stated in the House of Commons that licences were refused in cases where a dye of British make identical or equivalent to that for which an application is made was obtainable. The last point of complaint deals with the composition of the Licensing Committee, which, so the merchants submit through the British Chemical Trade Association, is not a properly balanced committee of the various interests. The merchant importers and their customers, and the

small users, who in the aggregate are of considerable importance, are not represented on the Licensing Committee. The British Chemical Trade Association, which have lately been actively engaged in protests in the House of Commons on these and other points, are asking for an impartial inquiry into these complaints. While appreciating the difficult duties of the Licensing Committee and the efforts which British dye-manufacturers are making to improve the position, we consider it essential that the staple industries of the country should have free access to raw materials from outside sources when the home-made product proves unsatisfactory.

The German Eau de Cologne Industry

GERMAN newspapers reproduce an apparently officially inspired statement to the effect that in the course of the past few years the position of the eau de Cologne industry has become steadily worse. This, it is stated, is due in part to increased foreign competition, numerous "imitations" now being manufactured outside Germany, and in part to the insufficient supplies of alcohol allotted to this branch of industry during and since the war. However, one of the principal difficulties encountered by this industry is the fact that it is impossible to raise the price of the finished product to cover the actual cost of manufacture and still be in a position to compete with foreign "substitutes." "The eau de Cologne industry suffers enormously from French competition," we are told, "and can only meet this competition provided that it can quote cheaper prices than those ruling for French brands. . . . Fortunately, the German Government has recognised the critical situation in which the eau de Cologne industry is placed, and has consented to deliver alcohol at a reduced rate to this industry, under the condition that the alcohol supplied either be rendered unfit for human consumption or that the manufacturing processes into which it enters shall be under permanent official control."

Checking Doctors' Prescriptions

THE curious suggestion was made by the Liverpool stipendiary magistrate during the hearing of a charge against a medical practitioner, under the Dangerous Drugs Act (*C. & D.*, February 18, p. 40), that "when a chemist is asked to make up a prescription of dangerous drugs for a doctor's personal use . . . his wisest course is to ask the doctor to get the prescription of a fellow-practitioner." There is not, of course, any justification whatever for placing this additional onus on the chemist, who has merely to satisfy himself that the prescription conforms with the Regulations. The "Lancet" refers to the matter as follows:

The magistrate, after explaining the element of doubt, found for the defendant. He suggested, however, that druggists should tell medical men needing such drugs that they should obtain them through prescriptions signed by medical colleagues. This would hardly seem practicable. It is not for druggists to impose conditions on the sale of drugs not demanded by the law, and medical men must be able to get drugs supplied to them for use in the treatment of their patients. When a medical man is his own patient he has as much right to obtain the medicine that he prescribes as when the prescription is written by him for the treatment of any other patient.

The Liverpool case was a Home Office prosecution, and it is the duty of the representatives of the medical profession to see that such prosecutions are stopped. It will be remembered that in the dark days of the Cocaine and Opium Order and Army Council Order (Drugs for the Troops) the contention was seriously put forward that a medical man could not prescribe the proscribed drugs for himself.

The Title "Chemist"

At the annual meeting of the Institute of Chemistry, held in London on March 1, the President, Mr. A. Chaston Chapman, F.R.S., in his presidential address, referred to the title "chemist," going a little further than his

predecessors in designating the use of the statutory title, "chemist and druggist," as a misapplication of the word "chemist." He said:

He did not believe that any single cause had contributed so greatly to retarding in the past the progress of the profession of chemistry in this country as the misapplication of the word "chemist." In no other country was there any confusion between the person who practised chemistry and the person who followed the profession of pharmacy, and Continental chemists often expressed their inability to understand what they no doubt regarded as one of our many national peculiarities. For the present the members had to be content to express the hope that their friends the pharmacists, without relinquishing their rights, would, wherever possible, refer to their ancient, important, and very honourable calling by the word which more accurately defined and described it. The power—he might say, the tyranny—of a word was often very great, and he appealed to the Press, as a very important factor in the enlightenment of the general public, to assist, so far as it could, by employing the terms "chemist" and "pharmacist" respectively in the correct signification. It was to be deplored when such confusion was the unfortunate consequence of the poverty of a language; but in this instance the correct and distinctive words were readily available, and the confusion was therefore easily avoidable. If chemists themselves used the word without qualifying adjectives it would be an effective step towards establishing the proper meaning of the word.

It is thought, evidently, that in this way the public will be "educated," but we hope that chemists and druggists will not assist in thus renouncing the historic title of "chemist," which, as the "Journal of the Institute of Chemistry" states, "still to the majority of the public suggests primarily the person who sells them medicine."

Chemical Society

At the meeting of the Chemical Society, held in Burlington House, London, W., on March 2, Dr. M. O. Forster, F.R.S., in the chair, three papers were read. Professor T. M. Lowry (with Messrs. V. Steele and H. Burgess) presented a paper on *New Halogen Derivatives of Camphor. Part II.— α -Bromocamphor*. The production of bromocamphor was foreshadowed already in 1878, when Armstrong found that large amounts of alcoholic solution of potassium hydroxide were necessary to brominate camphor. In the process of bromination two isomerides were obtained, an α - and an α' -compound, and it was found that the presence of the latter increases the solubility of the former. To investigate these two isomerides, the authors resorted to the method of solubilities. An ester was prepared, and the effect of the β -compound on the solubility of the α -compound studied. It was found difficult to isolate the two isomerides, but after a series of investigations this was effected by fractionation. It was found that the mixture contained a constant proportion of the α - and α' -compounds, the relationship being 92 and 8 per cent. respectively. The mixture has a melting-point of 149° , while the melting-point of the α -compound was found to be 169° , and of the α' -compound 78.5° . Further investigations showed that on bromination of chlorocamphor, always an identical mixture of α - and α' -bromocamphor was obtained. On the other hand, on the nitration of chlorocamphor two stereoisomeric nitrates were obtained, but on nitration of bromocamphor only a single compound is produced. In another paper presented by Professor Lowry (and J. O. Cutter), on *The Rotatory Dispersive Power of Organic Compounds. Part X.—The Preparation and Properties of Pure Ethyl Tartrate*, the author referred to the simple rotatory dispersion of various substances, and stated that the object of the investigations undertaken was to carry out a rigid test of a formula to express anomalous rotatory dispersion, a feature which is very rare and striking in organic chemistry. Pure ethyl tartrate is difficult to produce, owing to the difficulty in starting crystallisation; it has a melting-point of 18.7° , and on distillation turns slightly yellow, this change of colour is, in fact, an indication of its absolute purity; its rotatory power is 57° .

Westminster Wisdom

By the "C. & D." Parliamentary Representative

IMPORTATION OF ANILINE DYES

A number of questions have been asked in the House of Commons regarding the importation of aniline dyes. It was suggested in some of the questions that the Dyestuffs Development Committee is not sufficiently active in promoting the development of the industry, and that the Dyestuffs Licensing Advisory Committee is acting more in the interests of dye-makers than of dye-users. In regard to complaints from users, one instance given referred to lime-green required by paint-makers in Hull, and another referred to the importation of rhodamine. The latter request, Mr. Baldwin, for the Board of Trade, said, was not granted because the dye is being made in this country by the Clayton Aniline Company.

TARTARIC-ACID INQUIRY

Mr. Galbraith asked the President of the Board of Trade, on March 6, whether he is aware that at the open inquiry to consider the imposing of a duty on tartaric acid and cream of tartar, Sir David Kerly, K.C., complained that the name of the applicant had not been disclosed; whether Mr. Whitehead, who represented the Board of Trade, stated that his Department had undertaken not to disclose the name; and, if so, whether he can state what was the object of concealing the name of the firm in question.

Mr. Baldwin replied that the complainants in the case mentioned consisted of two firms whose names were disclosed at the hearing, and certain other firms whose names were not so disclosed. As regards the latter, the Board were satisfied that they were British firms, and parties "interested" within the meaning of Section 1, Sub-section 5, of the Safeguarding of Industries Act, but that the disclosure of their names might cause them commercial disadvantage. The complaint by counsel mentioned in the first part of the question was made, but subsequently withdrawn.

DENTISTS ACT, 1921, REGULATIONS

Mr. G. Locker-Lampson, in the House of Commons on March 2, moved:

That an humble Address be presented to His Majesty praying that the Order in Council under the Dentists Act, 1921, dated January 16, 1922, approving Regulations of the Dental Board of the United Kingdom, presented on February 7, may be annulled.

He said the Dental Board of the United Kingdom is asking the House to pass Regulations which he believed will be very unjust and harsh upon all those dentists who come on the Register in the future. The Dentists Act, 1921, permitted certain unregistered dentists to secure registration without having passed an examination, and the same Act set up a Board of thirteen persons to take charge of the registration and generally look after the business of the registration. His complaint is that the Board under these Regulations is charging absurdly high fees. Under the old Act of 1878, which is still in force, the registration fee was £5, and the dentist paid that fee once and for all, and was not called upon to pay further fees in any year after that first year. But by the last Act the Board has been given power to charge an annual fee for retention on the Register, and under the Regulations which the Board has now laid on the table of the House it is going to charge dentists who come on the Register in future, not only the £5 registration fee, but an annual retention fee of £5 in subsequent years. This is far too high. It is probably going to affect about 10,000 dentists during the next few months. At the present moment there are about 5,000 dentists on the Register, and he believed that over 5,000 have joined since the Act was passed last year. They are coming on every day and every week, and therefore, at the figure of £5, you have already got 10,000 on the Register, and the Board will receive an enormous sum within the next few months. Year after year that sum of money is going to increase, because as the dentists who came on the Register under the old system die out, their places will be taken by new men, who will have

to pay this retention fee of £5 annually. Very likely, in a few years' time, as others die off there will be 20,000 dentists on the Register, each of them paying this annual retention fee. That is to say, the Board will be getting from this item alone £100,000 a year. It will get about £50,000 in a very short time. What he wanted to know is, What is the Board going to do with all this money? "It works out at about £1,000 a week. Is the office going to cost this large sum of money? I should think, putting it at a high figure, that £10,000 a year is plenty in these days for an office of this kind. I should have thought another £10,000 would have been sufficient—say, £20,000 in all—which only works out at £2 per dentist." The Board is asking for a £5 fee every year. In addition to the revenue referred to, there are other fees, and there is the profit made out of the sale of the Regulations, which cost about 6d., and are sold at 2s. 6d. The members of the Dental Board have voted themselves very handsome fees. Each member of the Dental Board gets £5 5s. a day; he also gets extras if he is not residing in London. Every Scottish member of the Dental Board gets £10 10s., *plus* travelling expenses. The meetings of the Board only begin at 2 o'clock and end at 6. In about three weeks the allowances paid to members of the Board have reached £349 16s. 6d. The Board has taken the lease of a vacant piece of land next the office of the General Medical Council, and proposes to erect handsome offices upon it. The same Registrar works for the General Medical Council and the Dental Board. When a doctor gets on the Medical Register the fee is £5 1s., and that is all. He pays nothing in the way of retention fees. Why should not dentists be placed on the same basis?

Mr. Acland, who is chairman of the Dental Board, said that if the Regulations were annulled it would be impossible to carry on the work of the Dental Board. The object of fixing the fees at the present scale is to raise money for the erection of premises. The core of the matter is that the Act requires fees not needed for administration to be allocated to purposes connected with dental education or research, or any public purposes connected with the profession of dentistry.

The House was counted out, but on March 8 Mr. Seddon moved that the Regulations of the Dental Board be annulled. Mr. Seddon protested against a registration fee of five guineas charge year by year. It was an imposition, and not a registration fee. The Regulations inflicted a grievous hardship upon men who did their duty during the war, as against men who stayed at home. During the war it was made easy for medical practitioners and dentists to register. There was a skeleton examination. Captain Elliott: That is a grave accusation. Mr. Seddon: I withdraw. There was not, he added, a supply of dentists to meet the requirements of the Army during the war. He asked the Minister of Health to withdraw the Regulations. They wanted equality of treatment, and that membership of an organisation should not be the talisman in order to go upon the Register. Captain Loseby seconded. Mr. Raffan declared that the real point the mover was making was not an attack on the Regulations but an attack upon the Act of Parliament. Mr. Acland (chairman of the Dental Board) stated that the Board had not decided at present to refuse to register one ex-Service man who had applied for registration. Sir Alfred Mond, replying, said when the Act was established the House appointed a Dental Board, which represented all sections of the profession, with the object of preventing the time of the House from being occupied with a large amount of detailed discussion of the character they had heard that night. He had had no complaints about the Regulations and no representations from any ex-Service men's organisation on the subject at all. On the question of the yearly fee, the Minister stated that he could not understand why it was looked upon as a colossal fee. At the end of two years the amount might be reviewed, and it might be then found that a lower fee would meet the requirements. The motion was by leave withdrawn.

BOOTS, LTD., have purchased the block of buildings at the junction of Gold Street and the Drapery, Northampton, in which they carry on business

Associations' Winter Session

Aberdeen.—The annual meeting of the Aberdeen Pharmaceutical Association was held in Robert Gordon's Technical College on March 1, Mr. W. F. Hay (President) in the chair. The report of the Educational Committee given by Mr. Farquhar was adopted, and the sum of £9 provisionally granted for prizes for evening-class students. Mr. Mutch was complimented on his work as convener of the Entertainments Committee. A small sum left in trust by the Junior Chemists' Golf Club was ordered to be handed over to the Aberdeen Pharmacists' Golf Club. Mr. Hay, in demitting office, thanked the members for their support during his three years as President, and Mr. James Farquhar was unanimously appointed *President*. The other office-bearers were: *Vice-President*, Mr. A. P. Wallace; *Treasurer*, Mr. Wm. Reid; *Secretary*, Mr. H. M. Dugan; *Auditor*, Mr. Hay. Messrs. Bryant and Simpson were appointed to the executive. Mr. Bryant asked for access to the minutes for the purpose of writing the history of the Association; these minutes are complete for the past eighty-three years.

Cambridge.—The annual meeting of the Cambridge Pharmaceutical Association was held on February 24. Mr. Henry Flanders in the chair. It was agreed to send a letter of condolence to Mrs. Mallett on the loss the Association had sustained in the death of the late Mr. T. J. Mallett. The President was re-elected, as were the hon. treasurer and the five Vice-Presidents. A committee consisting of Messrs. J. Evans, Moss, B. S. Campkin, Turner, and M. E. Parson were elected. Mr. Arthur Deck was again made hon. secretary, and an emergency committee was appointed. It was agreed that the Association shall remain as at present constituted, and that a branch of the Pharmaceutical Society be formed; that the officers of the Association, if eligible, function as the officers of the local organisation branch; that a branch of the Retail Pharmacists' Union be formed; and that the officers of the Association shall function as the officers of the Retail Pharmacists' Union organisation, if eligible. Mr. H. F. Turner was appointed delegate to the R.P.U. Conference.

Cardiff.—The annual meeting of the Cardiff Pharmacists' Association was held recently, the President (Mr. D. Brims) in the chair. The report of the War Auxiliary Benevolent Fund of the Pharmaceutical Society was presented and considered satisfactory. It was decided that during March a whist-drive should be organised, the proceeds to be handed over to St. Dunstan's Home for the Blind. Messrs. Owen Jenkins, R. Robinson, J. D. Jenkins, G. T. Thomas, and Jesse Mason have offered to provide the necessary prizes. The secretary then read the annual report and balance-sheet, which showed a financially sound position. All pharmacists resident in Cardiff and Penarth are now members. The report was carried unanimously. Mr. A. Hagon, who had served on the Cardiff Insurance Committee since its inception, was unable to offer himself for election, and Mr. A. S. Johnson had been appointed as pharmaceutical representative. Mr. E. Poole proposed a vote of thanks to Mr. A. Hagon for his untiring work. This was carried unanimously. The new President (Mr. A. J. Harris) was received with acclamation, and thanked the members for the honour they had conferred on him by electing him as their President for 1922. He then gave his presidential address on *Present Conditions in Pharmacy*. With regard to the practice of pharmacy, a definite line has been drawn between the professional side of the calling and the trading side, and the division will become more and more definite, until the man who fits himself for the higher branches will have powers and standing which the man who is content with simply buying and selling will not. He (the speaker) welcomed this prospective state of affairs. The Society has paid too much attention to the trading side and too little to the purely pharmaceutical side, as a result of which chemists are years behind the standard attained in many European countries. Some are apt to ridicule the idea that phar-

macy should seek the status of a "profession," yet it is certainly something more than a "trade." How much more each man is able to determine for himself, or perhaps by the environment in which he finds himself. In so far as the pharmacist endeavours to use the specialised training he has received, and to cultivate that elusive quality termed "personality" in his dealings with his customers, he is a professional man. The question of money-making should not, and need not, be allowed to enter into it. Those already in pharmacy should realise its limitations, and to exercise themselves more in seeing how to apply their special knowledge and skill. Concentration on such lines will not leave one so very far behind pecuniarily, as has been demonstrated by the characters of the men who have made money in pharmacy. In every instance they were "good chemists" before anything else. He had actually witnessed the making of a comfortable fortune by no other means than the application of the art and science of pharmacy, and without the aid of any outside investment whatever. How many of our wealthy merchants can say that they have amassed their fortunes more in their actual business than they have by judicious investment in other concerns? Mr. Harris then described the functions of the Pharmaceutical Society and the value of the qualification, passing to the consideration of the work of the R.P.U. He then pointed out the growing need for the trained pharmacists in view of the great public services that exist to-day—tuberculosis sanatoriums, venereal disease clinics, children's clinics. The Society should devote its whole attention to these matters. If a State medical service came into being a State pharmaceutical service would follow. If the Society is not strong enough to make its opinion felt, the result will be disastrous for the profession of pharmacy. Votes of thanks to the retiring President and the remaining officers for their services during 1921 were carried.—The annual meeting of the Cardiff "Ucal" Club took place recently, Mr. S. B. Eason presiding. A discussion arose on the future programme of district advertising, and it was agreed that henceforth advertising schemes shall take more of the newspaper form. The election of officers resulted as follows: *President*, Mr. J. Murray; *Secretary*, Mr. R. Robinson. The annual report and balance-sheet was presented and considered satisfactory.

Edinburgh.—The Edinburgh Chemists', Assistants', and Apprentices' Association held a meeting at 36 York Place on March 1, Mr. Thomas Smith (Vice-President) in the chair. Mr. J. H. Tainsh gave some *Notes on Pill-making*, relating his experience with potassium permanganate, zinc valerianate, and phosphorus. Care is necessary to avoid any excipient incompatible, either chemically or therapeutically, with the drug prescribed, and to avoid large pills; 5 gr. was suggested as the limit. In his experience varnishing of pills or coating with gelatin or silver are obsolete. French chalk is used largely for dusting on pills, but he has been using powdered cinnamon. Some recent examples of pills were given. One containing $\frac{1}{2}$ m creosote, $\frac{1}{2}$ m oil of peppermint, 2 gr. pepsin, and $\frac{1}{2}$ gr. powdered ext. of aloes gave a good mass with the addition of 1 gr. of curd soap. An unusual pill contained 1 gr. scammony resin, $\frac{1}{2}$ m oil of cinnamon and balsam of tolu, and magnes. carb. q.s. A suitable pill was obtained by leaving out the magnes. carb. Protochloride of iron always gave the best results with the fresh salt. A pill to contain 5 gr. quinine sulphate was satisfactorily massed by means of lanoline. A pill containing 1 gr. carbolic acid, 1 gr. potass. sulphate, $\frac{1}{2}$ gr. ext. of nux vomica, and 4 gr. compound rhubarb pill was troublesome, owing to the carbolic acid and the soap tending to liquefy. The trouble was overcome by using a little wax. Difficulty in keeping dried extracts in good condition is eliminated by getting supplies in stoppered bottles. Mr. J. Tait, Ph.C., then read a paper on *Vitamines*, first giving the history of these substances especially in regard to beriberi, a malady which is a classical example of the so-called deficiency diseases. Mr. Tait detailed the symptoms of beriberi before proceeding to describe how, in rice, during the milling process, the layer containing the vitamines is removed, and how beriberi is thus definitely attri-

butable to the exclusive use of polished rice. The word "vitamine" is rather misleading, because, ordinarily, the vitamins from other items in the food supply make up for any deficiency in the polished rice. For this reason the term "accessory food factor" has been substituted for "vitamine." The speaker then showed that physiologists now teach that the essential constituents of food are proteins, fats, carbohydrates, inorganic salts, water, and accessory food factors or vitamins. So far three definite food factors or vitamins have been recognised. These are: (1) Fat-soluble A; (2) water-soluble B; and (3) water-soluble C. No. 1 is the antirachitic factor, and is specially related to impaired growth. No. 2 is the anti-beri-beri or anti-neuritic factor. No. 3 is the anti-scorbutic factor, and is specially related to scurvy. All three stimulate growth and development, and are essential to get the best nutritional results. As to the stability of vitamins, the "A" factor is stable at 100° C., and even as high as 140° C.; the "B" factor is stable at 100° C., but is slowly destroyed at 120° C., while the "C" factor is slowly destroyed above 50° C., and rapidly above 80° C. Mr. Tait then gave a table indicating the distribution of vitamins in some common articles of food. Long before vitamins were recognised, people, as the result of observation, gave special place to foodstuffs containing them. Thus lime-juice for sailors on long voyages without supplies of fresh meat or vegetables has been in use for ages as a preventive of scurvy, and Norwegian fishermen have for long known that cod-liver oil has special nutritive qualities. The common article may have more value than the physiologically pure. Civilisation, in its craving for refined processes and dainty food products, may easily go astray, said the author, indicating how fine white bread, fancy cakes, tinned meats and fruits may be far short of what they should be in nutritive value. In the milling of wheat grains the outer layers containing the vitamins are removed. That mattered little to persons who get meat and eggs, but is of serious importance to those whose principal diet was bread. In recent years we have witnessed wonderful advances in scientific investigation in such matters as sanitation and public health. But we seem not to have been getting the full value out of Nature's food supply. The boiling of milk was shown to result in a product which may be worse than the original unless orange juice is added to supply the deficient food factor. The subject of vitamins is of great importance. The relations and inter-relations and balance between vitamins and hormones—those remarkable active bodies controlling internal secretions—are now engaging the attention of keen workers. The next paper was *The Determination of the Arsenic Limit Test*, by H. Stout, Ph.C. Mr. Stout gave an interesting practical demonstration of the application of the test in the ordinary routine of a pharmaceutical laboratory. He pointed out, giving examples, that the permissible limit of arsenic in medicinal substances varies widely in the different bodies. From experience he found the B.P. standards are not too high, and substances of B.P. standard can be easily obtained by those who are prepared to pay a reasonable price. The permitted limit of arsenic is fixed from the amount generally found by analysts, without reference to the medicinal dose of the substance. An interesting discussion followed, and afterwards votes of thanks were awarded to Messrs. Tainsh, Tait, and Stout.

Public Pharmacists.—The Public Pharmacists' Association held the annual meeting on February 1, Mr. F. E. Bullen (vice-chairman) in the chair. The annual report for 1921, which was read, recalled the fact that stipulations were now being made by public bodies that candidates for posts as dispensers should hold the pharmaceutical qualification. The Association had consistently advocated this step. An invitation to join the "Federation of Medical and Allied Societies" had been carefully considered, but for financial and other reasons it had been decided to defer acceptance. The "Poor Law Section" report dealt mainly with the question of status and tenure of office of dispensers in the Poor Law service, and mention was made of the efforts of the Pharmaceutical Society to obtain a satisfactory decision. The financial statement

for the current year showed a substantial balance. The following officers were then elected: *President*, T. H. W. Idris, Esq., J.P.; *Chairman*, Mr. F. E. Bullen; *Vice-Chairman*, Mr. G. W. Gibson; *Hon. Secretary of the Association*, Mr. L. W. Billington; *Hon. Secretary Poor Law Section*, Mr. R. W. Lindsey; *Assistant Secretary*, Mr. A. J. Gibbons. All the old members of the Council were re-elected. A vote of thanks was passed to Mr. G. W. Gibson for so ably occupying the chair during the last year, and the business of the evening concluded with an interesting address on *Pharmaceutical Topics* by Mr. Herbert Antcliffe. He stated that it was now generally recognised that the Public Pharmacists' Association had gained considerably in prestige and influence. He congratulated the Association on its success in keeping out the unqualified person, and considered that this was due mainly to the unceasing and devoted efforts of the former secretary, Mr. G. W. Gibson. He could assure the members of the Association that any representations or grievances brought before the Pharmaceutical Council would receive sympathetic consideration.

Scarborough.—The Scarborough Pharmacy Club held a meeting on February 16, the chair being taken by the treasurer. Mr. R. Glenton (secretary) was elected delegate to the meeting of the North-Eastern Federation to be held at York, to discuss the division of the area into local branches. A lecture was afterwards given on the preliminary study of *Volatile Oils*, by Mr. G. E. Bird, M.P.S.

Southend-on-Sea.—The annual meeting of the Southend-on-Sea Association of Pharmacists was held recently, following an informal dinner. Mr. King reported the meeting he had attended at Bloomsbury Square, dealing with the formation of branch societies, as delegate, and Mr. S. F. Body, the secretary, gave a report of the year's work. Major S. Peck had recently visited the Technical School to report on its suitability as a recognised school of training for Part I. of the Qualifying examination, and the school had now been placed on the approved list. Mr. Hill, treasurer, gave his report, which showed there was a balance in hand of £2 13s. 5d. Mr. Body stated that some of the wholesale houses had defrayed the expenses of certain lectures. The election of officers took place as follows: *President*, Mr. Carpenter; *Vice-President*, Mr. Cowe; *Secretary*, Mr. Body; *Assistant Secretary*, Mr. Pratt; *Treasurer*, Mr. Bruce; *Hon. Solicitor*, Mr. Jerome; *Committee*, Messrs. Hill, Shields, McLaren, Gilmour, Misselbrook, Powell, Oldland, and King; *Social and Sports Committee*, Messrs. Longthorne, McLaren, Marsden, Clark, Whitehouse, Harris, and Bruce. Mr. Millbank, President of the East Anglian Association, spoke briefly regarding the Federation. Mr. Tydeman then gave an address on *Branches of the Pharmaceutical Society*, and explained how these would be conducted.

Southport.—The monthly meeting of the Southport Pharmacists' Association was held on February 14. Mr. A. H. Messenger (President) was in the chair, and at the outset he referred sympathetically to the death of their secretary (Mr. R. H. West). The meeting passed a vote of condolence with the family. The President next announced that Mr. W. H. Smith, their secretary up to the annual meeting, had voluntarily offered again to take up the work, and the meeting cordially accepted that offer. The new rules were then approved *en bloc*.

York.—The annual meeting of the York Chemists' Association was held on February 23, the chair being occupied by Mr. F. G. Hines. The following officers were elected for 1922-23: *President*, Mr. W. P. Saville; *Vice-President*, Mr. Mark F. Burgin; *Treasurer*, Mr. J. A. Lupton; *Hon. Secretary*, Mr. J. H. Lupton; *Committee*, Messrs. T. E. Batty, W. Bowness, C. F. H. Coates, W. Dewhurst, S. Lawton, H. Loader, F. A. Newey, T. P. Parker; *Auditor*, Mr. T. C. Atkinson. The formation of some form of combined buying was left for the committee to arrange. Mr. Hines, reporting on the meeting of the North-Eastern Federation held at York on February 22, said York would form a local branch of the Pharmaceutical Society if called upon to do so.

Insurance Act Dispensing

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

Reports from Local Centres

ENGLAND

Birmingham.—A meeting of the Pharmaceutical Committee was held recently, when it was stated that the aid of the Committee had been requisitioned to assist in the formation of rotas in various districts for holiday duties. Stockinette bandages are being ordered by one or more doctors in Birmingham, but are not allowed. Wadding might be supplied as cotton-wool, the prescription being marked accordingly. The checking report for September prescriptions was considered satisfactory. Two additions to the panel of chemists were reported.

London.—A meeting of the Pharmaceutical Committee was held on February 14, Mr. H. Skinner (vice-chairman) presiding. The Committee decided to continue the contract for the checking of prescriptions by the Central Checking Bureau for 1922. The checking of prescriptions for November showed a margin of error of 0.09 per cent. The secretary reported the following particulars of dispensing:

	October			November		
	£	s.	d.	£	s.	d.
Value of ingredients ...	6.817	4	5	7.604	19	11
Value of dispensing-fees ...	10.948	5	3	11.910	11	1
Number of prescriptions ...	472,636	0	0	512,668	0	0
Average ingredient cost ...	3.46d.			3.56d.		
Average dispensing fee cost ...	5.56d.			5.58d.		

The Committee decided that inquiries on a question regarding the present hours of service in a portion of Lambeth should be made for report to the next meeting. The Insurance Committee had received a complaint as to the inadequacy of the pharmaceutical service in Deptford for the supply of "Urgent" medicines. Also, a complaint had been received regarding the dispensing facilities in South Hackney. The Committee decided that inquiries should be made. On intimation from the Insurance Committee that single-sheet prescription-books would be issued, the Pharmaceutical Committee strongly protested against this proposal. To cover the estimated expenditure of the Pharmaceutical Committee for 1922, the Insurance Committee decided that a deduction of 1 per cent. be made from chemists' accounts. —Mr. F. E. Thomas presided at the monthly meeting of the Insurance Committee held on February 23. The total accounts recommended for payment by the Finance Committee amounted to £23,947 12s. 3d., of which £19,513 2s. 3d. was to chemists for 1921-22. The accounts were passed. The Prescription Pricing Section had been augmented by the addition of the following: Dr. E. A. Gregg, Mr. H. Lesser, and Mr. A. R. Melhuish. The Medical Benefit Sub-Committee reported that in connection with a point raised by the auditor, if any practitioner persistently fails to state the Christian names or initials of insured persons on his prescription forms they propose to refer such cases to the Medical Service Sub-Committee. This was approved. The Medical Benefit Sub-Committee furnished the following particulars of "Urgent" prescriptions (January to September 1921):

	1st Quarter	2nd Quarter	3rd Quarter
No. of prescriptions ...	1,078	690	745
Total cost of dispensing-fees...	10.677d.	7.815d.	8.252d.
Average dispensing fee: cost per prescription ...	9.90d.	11.30d.	10.08d.

The Medical Benefit Sub-Committee consider that if a practitioner exceeds the maximum dose of a potent preparation he should initial the quantity ordered. The Panel Committee is to be asked to approve, and to inform practitioners accordingly. A chemist, it was suggested, should receive out-of-pocket expenses in connection with the supply of ampoules containing preparations other than vaccines, serums, and oxygen, and the attention of the Pharmaceutical Committee is to be drawn to the

matter. The Medical Benefit Sub-Committee also made the following recommendations, which were adopted: "When children's mixtures, contained in the London Insurance Pharmacopœia, are presented for adults, the prescription should be priced in accordance with the practitioners' order. The attention of the Panel Committee, it was also suggested, should be drawn to the difficulty arising from the prescribing for adults of mixtures intended for children." The Medical Benefit Sub-Committee consider that no alterations affecting the quality or quantity of the drug, medicine, or appliance presented should be made by the chemist without the sanction of the prescriber. The report was adopted. All prescriptions issued on and after April 1, irregular in any of the following details, shall not form a charge upon the Drug Fund, but shall be returned to the chemist:

- (1) Are not written on the official form supplied by the Committee.
- (2) Do not bear the Christian names or initials and surnames of patients.
- (3) Do not bear the dates of issue.
- (4) Are not signed by the practitioner (or *locum tenens*), in which event such partner, etc., must insert on the form the name of the practitioner for whom he is acting.
- (5) Are not made out to show clearly the intention of the prescriber as to the quality and quantity of drugs, medicines, and appliances which are to be supplied.
- (6) Do not bear the name and address of the chemist who dispensed them.

Sheffield.—At a meeting of the Insurance Committee recently it was reported that a complaint of a patient had been investigated, alleging that she had been charged by the practitioner for medicines supplied. The doctor admitted the charge, stating that it was made at the request of the patient, who preferred to pay rather than secure the medicine from the chemist. The practitioner was severely censured. Three names were added to the list of panel chemists, and one chemist had resigned. The added area to the City of Sheffield boundaries have been settled for the mile radius in the districts of Darnall, Woodhouse, Shiregreen, and Wadsley Bridge. The Sub-committee appointed to prepare a scheme for the taking of the samples of medicine and appliances for analysis have issued a report, of which the following is a summary:

To arrange for informal samples being taken at the request of the Panel Committee, and to consider any request respecting these as may be submitted by the Pharmaceutical Committee; the form to be used is to be the ordinary prescription form, and the practitioner may indicate the district from which samples are to be procured; the clerk to mark the prescription so that it may be identified at the Pricing Bureau, and to take precautions that the medicine shall not be tampered with: it shall be analysed by the city analyst or some other person approved without divulging the name of the chemist who has dispensed the sample; the result to be reported to the Committee, also to the Panel and Pharmaceutical Committees. After receiving any report from the Panel or Pharmaceutical Committee, the Committee shall deal with the case in such a manner as shall seem desirable.

Payments are recommended for January of £1,699 9s. 8d. for chemists' accounts, and a refund of £221 12s. 11d. deducted as per agreement in excess of the amount required for the Pharmaceutical Committee's expenses.

St. Helens.—The Pharmaceutical Committee has adopted a scheme, to commence on April 1, for a rota for panel chemists to be open on Thursday and Sunday evenings and a rota for public holidays.

Wolverhampton.—A meeting of the Pharmaceutical Committee was held recently, at which the secretary stated that Mr. F. J. Gibson, J.P., was appointed as the pharmaceutical representative to the Insurance Committee, and that Councillor Willcock and he (Councillor Coleman) were also appointed to the Committee by the Town Council. It was resolved to continue with the Retail Pharmacists' Union for checking prescriptions.

Walsall.—At a meeting of the Insurance Committee on March 1 it was reported that the amount paid to chemists for 107,251 prescriptions during 1921 was £4,966, as compared with £5,336 for 123,381 prescriptions in the previous year. The number of prescriptions for January 1922, 16,126, compared with 10,079 for January 1921.

Milk-sugar Inquiry

MR. CYRIL ATKINSON, K.C., the Referee under Part I. of the Safeguarding of Industries Act, began, and concluded, on March 4, an inquiry into an application by Allen & Hanburys, Ltd., for the removal of lactose "R" from the list of dutiable articles issued by the Board of Trade. The letter "R" added to a chemical in the list signifies that it is included only when it is "pure," "P.B.," "Ph.G.," etc. In this particular instance, for the first time, there was no opposition from interested parties, and the case was one between the applicants and the Board of Trade, for whom Mr. Whitehead appeared as usual. The applicants were represented by Mr. J. Hunter Gray, K.C., and Mr. Trevors Watson. The Board of Trade has included refined lactose in the list both as a chemical and a fine chemical, crude yellow lactose as ordinarily prepared from the by-product whey, not being dutiable. It is said by the Board of Trade, however, that refined lactose is a chemical by reason of (a) its constant molecular composition, (b) its having been "prepared" to a substantial extent, (c) its being generally and primarily used for its intrinsic and characteristic "chemical" properties as distinct from any physical properties it may have, and (d) its chemically reactive properties. It is also claimed by the Board of Trade that lactose "R," whether bacteriological or B.P., is a "fine chemical" by reason of (a) its preparation being a matter of very considerable chemical difficulty, requiring most careful chemical and bacteriological supervision under conditions of particular mechanical and bacteriological cleanliness: its preparation is also carried out in typically "fine chemical" plant; it involves tests of raw material to ascertain the correct proportions in which the various reagents should be added, separation of colloidal, metallic, and other impurities, decolorisation, and vacuum evaporation treatment; (b) its purity; (c) its preparation and its handling for sale and in use in small batches.

THE CASE OPENED

Mr. J. Hunter Gray, K.C., in stating the case for Allen & Hanburys, Ltd., said that lactose is one of three essential bodies contained in milk, there being about 88 per cent. of water, 4 per cent. of fat, 4 per cent. of casein, and 4 per cent. of lactose. Lactose in milk was there as such, and never at any time, during the processes he would describe, was it altered in its composition at all. There were two methods of obtaining lactose, which was a by-product of the manufacture of cream, butter, and cheese. The cream and butter were obtained by methods which were well known, and there then remained the casein and the whey. If only the casein was required, then a small percentage of acid to neutralise the alkalinity was added, and the casein, which was held in the milk, was coagulated and could be separated. If this were completely done, then they were left with a solution of milk-sugar in water. If the object was to obtain cheese from the milk, both the cream and the casein would be extracted together, leaving again a solution of milk-sugar in water. In both cases the by-product was simply sugar dissolved in water, and by evaporating the water off a precipitate was obtained which was mainly or wholly milk-sugar or lactose. By redissolving and recrystallising a very high degree of purity was obtained, the degree of purity being merely a question of frequent recrystallisation. Richter's "Organic Chemistry," which had been frequently mentioned in the cases before the Referee, dealt very briefly with the matter. It merely stated that milk-sugar is prepared from whey. This is evaporated to the point of crystallisation, and the sugar that separates is purified by repeated crystallisation. Thus, continued Mr. Gray, the lactose began in the milk as lactose and

finished as lactose. No chemical change had taken place from start to finish. It had a chemical formula which was $C_{12}H_{22}O_{11} + H_2O$, the chemical composition of cane-sugar being the same, without the water. Mr. Whitehead: Is that water of crystallisation? Mr. Ronca (Board of Trade): Yes. Mr. J. Hunter Gray said it had just occurred to him whether cane-sugar was in the list. Mr. Ronca: No.

Mr. J. Hunter Gray, continuing, said his case was that lactose was on exactly the same footing as cane-sugar. He doubted whether there would be any dispute with regard to the facts as to the manufacture of lactose, or rather the extraction of it, and the amount of skill required was essentially that which an ordinary unskilled workman, who was not a chemist, could acquire in a very short time by experience. There were, of course, necessary precautions to be observed in regard to cleanliness in the operations, to avoid contamination by bacteria of any kind, but that was merely on the same footing as, for instance, the manufacture of condensed milk, and, indeed, any of the food products. Therefore, his contention was that under no circumstances could lactose be regarded as either a chemical or a fine chemical. He knew that the Referee did not consider himself bound by any finding in any previous case—and, if he might say so, quite properly—but the Referee's experience would be such that he would reconcile the views in previous cases with those put forward in later cases, subject to fresh evidence, and he (counsel) said that because he was going to submit that the present case was an even stronger one than the santonin case, where santonin was held not to be a chemical. In the case of santonin a chemical change did take place at some stage, but in the case of lactose at no stage was there any such change. In fact, it was a case of pure extraction, and how it could be suggested that lactose came within the list he was entirely at a loss to understand. If it were to be held that lactose is a chemical, then the list ought to contain cane-sugar, or water, or starch, or condensed milk. He had some books and lists which contained references to lactose, but not one of them referred to it as a fine chemical. It was very largely referred to as a food. In 1918 the Food Controller, who, he presumed, did not control the importation of fine chemicals as such, issued an Order, which was called the Milk Products Imports Restriction Order, which included sugar of milk. The applicants in this case used some three to five tons per week of lactose, which came entirely from abroad and was used almost entirely for addition to infants' food, and he was not aware of any other use for it in any quantity, at any rate. Counsel then referred to a number of foreign official journals, in which milk-sugar was mentioned in relation to foreign tariffs. Thus the Italian tariff referred to it under the heading of "Milk and Cheese"; the Swiss tariff under the heading of "Drugs," to which there was a sub-heading "Pharmaceutical Articles," the reference in this case being to "whey powder." In the case of New Zealand, it came under the general heading of "Animals, Agricultural Produce, Foods and Groceries," and in the case of Spain under the heading of "Chemical and Pharmaceutical Products."

The Referee: What do you draw from that?

Mr. Hunter Gray said it did not occur anywhere under "Fine Chemicals." In the volume for 1917 of the "Journal of the Society of Chemical Industry," lactose came under the heading of "Sugars, Starches, and Gums," and from the method of manufacture mentioned there it would be seen that it was as simple as he had already described. Again, in the Directory of the Association of British Chemical Manufacturers, there was no mention of lactose.

Mr. Whitehead suggested that the inference to be drawn from this directory was that there is no manufacture of lactose in this country.

Mr. Gray said that if it was made in this country at all it was certainly not referred to in the Directory of the Association of British Chemical Manufacturers as a chemical.

The Referee said he did not know why Mr. Gray should be restricted to saying it was not manufactured

in this country. No doubt there were people in this country who would deal in chemicals, and dealers were included in the directory, and yet lactose was not mentioned in the directory. Mr. Gray said he had merely regarded it from the point of view of manufacture. The Referee said he thought it went further than that. If it were a chemical, Mr. Gray could say that one would expect to find it in the directory, and, *a fortiori*, if it were a fine chemical.

Mr. Gray then referred to Kelly's Customs Directory for 1920, and pointed out that although in respect of various countries there were headings of "Chemical Products," in no case did lactose come under those headings. He also handed in a price list of Sparks, White & Co., Ltd., distillers and chemists, and said he found lactose under "Sundries," notwithstanding there was a heading of "Chemicals, Fine." The attention of the Referee was also called to the book by Mr. Parry on "Foods and Drugs," in which lactose appeared under the heading of "Carbohydrate Foods," and it was there described as "sugar found in mammalian milk, in which it is present to the extent of about 5 per cent." On another page of the book it was dealt with more in detail under the heading of "Foods and Drugs." Continuing, Mr. Gray said that the lactose used by Allen & Hanburys was not the crude yellow lactose, but lactose of such a purity that there was not more than 0.25 per cent. of ash; indeed, in some cases the ash was as low as 0.005 per cent., which was almost chemically pure. The applicants did not desire to have crude lactose exempted from the list, although it was not there at present, but they thought it right and proper that pure lactose should be withdrawn from it. The crude lactose was of no use for practical purposes in this country, and there was not the slightest difficulty in obtaining substantially pure lactose at a reasonable price. He understood that it was sold at about 1s. 3d. per lb., and was brought over to this country in casks containing about 200 lb. Dealing with the statement of the Board of Trade as to their reasons for including lactose in the list as a fine chemical, Mr. Gray said that on that basis it would be necessary to include cane-sugar, starch, and water, to mention only a few substances of a like nature.

MR. GAMBLE'S EVIDENCE

Mr. F. W. Gamble, Ph.C., F.C.S., a director of Allen & Hanburys, Ltd., said that his company used about 250 tons per annum of lactose, mainly in the manufacture of infants' foods. About 90 per cent. was used for this purpose. The principal sources of supply were Holland and the United States, it coming over in 10-ton consignments, the barrels containing from 1 to 2 cwt. each. The other uses for lactose, apart from infants' foods, were pharmaceutical, and hardly medicinal. It was used for subdividing potent drugs such as strychnine and mercury subchloride. It was also used as a bacteriological medium; in other words, as a food for the bacteria in bacteriological cultures. He agreed with the statement made by Mr. Gray as to the manner in which lactose is made and the class of people who make it. Lactose was not produced by chemical manufacturers, but by people who made nothing else than milk-sugar, and who certainly could not be regarded as chemical manufacturers. The firm in Holland with which he did business was the Milk Sugar Works of Amsterdam, and the firm in the United States was known as Sheffield Farms. There was no chemical reaction in the extraction of the lactose from the whey; it was a purely physical process of crystallisation. There was decolorisation by means of charcoal and the ordinary laboratory tests and examination, but there was no chemical supervision of the processes. The chief supervision was with regard to cleanliness and lactic-acid fermentation, and as regards the latter, the supervision was more bacteriological than chemical. Bacteriological cleanliness was important in the preparation of all foods. There was no chemical reaction in the manufacture of lactose; being a carbohydrate food, it underwent combustion in the human system, but that applied to all foods.

MR. GAMBLE CROSS-EXAMINED

Mr. Whitehead cross-examined on behalf of the Board of Trade. Witness said his firm regarded itself as the largest user of lactose in this country, but he could not say whether the total use in this country of lactose "R" was about 400 tons, compared with 40 million cwt. of cane-sugar. He could not agree that cane-sugar was regarded as a heavy chemical, and he thought it was looked upon as a sweetening agent for food. He agreed that lactose was not put into infants' foods solely for the purpose of sweetening. Counsel suggested that the real reason for its use was that it was much less liable to fermentation than cane-sugar, but witness said the real reason was that lactose is a carbohydrate food, and the endeavour was to make the humanised milk represent as closely as possible mother's milk. It was also suggested by Mr. Whitehead that lactose is used for distinguishing bacteria, but witness was not able to answer, as he said he was not a bacteriologist. Coming to the question of chemical reaction, which witness had defined as two substances acting on each other, producing a third, counsel asked if milk-sugar would reduce Fehling's solution. Witness agreed that it would, and that this could be called a chemical reaction. He further agreed with counsel that milk-sugar has a definite chemical composition, that it is a crystalline body, and that it has chemical activity, properties which were ordinarily associated with a fine chemical. Therefore, said counsel, why did witness not regard it as a fine chemical?

Mr. Gamble first gave the reply, "Because I do not consider it is a chemical," but counsel pressed for more precise reasons. Mr. Gamble said that in the first place he did not know definitely what a chemical was, and the more one read about these proceedings the more difficult it became to decide. He would regard the phrase "chemical compound" as a narrower one than "chemical"; but, asked to agree that lactose is a chemical compound, witness said he would agree that it was a combination of carbon, hydrogen, and oxygen.

Mr. Whitehead then asked witness to forget all about the Safeguarding of Industries Act, and say whether he really thought lactose was a chemical compound; to which Mr. Gamble replied "Yes," but a chemical compound of carbon, hydrogen, and oxygen. Questions were then put as to the chemical action which takes place in the human body when lactose is consumed, and Mr. Whitehead compared this with the merely expellent action of santonin, with which lactose had been compared by Mr. Hunter Gray. Mr. Gamble said that as he understood it lactose was consumed as the result of oxidation, but he could not compare the effect of oxidation of lactose in the body with the effect of santonin on the tape-worm. Combustion was, of course, a typical chemical action. Mr. Whitehead said he did not propose to put a mass of references to books and price lists to the witness, and wished only to refer to the Directory of the Association of British Chemical Manufacturers. Mr. Gamble said his firm were not members of the Association, but he should imagine that as the book purported to give the list of manufactures of the members, if any of them made lactose they would have put it in. He believed it was a fact that no lactose is made in this country, and it was surprising that if any members of the Association made it they did not put it in the Directory if they regarded it as a chemical. The Referee suggested that they might not happen to be members. In answer to further questions, Mr. Gamble said he did not know of any firm here who imported crude yellow lactose and recrystallised it. The British Drug Houses, Ltd., crystallised lactose to a highly purified article for bacteriological purposes, and he did not know that they imported the crude kind; he should think there was no doubt that they started with B.P. lactose. However, if it was a fine chemical, why was it not in the trade list that had been handed in? Mr. Whitehead pointed out, in reference to the list of Sparks, White & Co., Ltd., that several things did not appear to come under their appropriate headings. For instance, there was a heading "Seeds," but linseed did not come under it, also a heading "Sugars," but milk-sugar did not come under it.

WHAT IS A PHARMACEUTICAL PRODUCT?

The Referee: Do you mind telling me what a pharmaceutical product is?

Mr. Gamble said the only definition he could give was that any substance used in pharmacy was a pharmaceutical product. He did not agree that every pharmaceutical product was a pharmaceutical chemical, and although it might be that many pharmaceutical chemicals were fine chemicals, he had but the vaguest notion of what a fine chemical was.

Mr. Whitehead: You would not be prepared to agree that 99 per cent. of pharmaceutical chemicals are fine chemicals? Mr. Gamble said he would not care to express an opinion. Anyway, he would not agree that milk-sugar is a pharmaceutical chemical, although it was a pharmaceutical preparation. Even so, the only real strict pharmaceutical use was in the breaking down of certain drugs.

There was some discussion as to what was a pharmaceutical substance and under what circumstances any substance which was only partly used for pharmaceutical purposes became a pharmaceutical substance. No very clear views were expressed on the point, however.

The Referee said that in previous cases Mr. Ballantyne had absolutely refused to define "chemical," and the expression "pharmaceutical" seemed just about as vague. No one yet had said what was meant by it, and when they had the expression "pharmaceutical chemical" they did not know what was meant by "pharmaceutical" or "chemical."

Mr. Whitehead said that perhaps the best definition would be to say that a pharmaceutical chemical is one that is used by pharmacists; in other words, to define it in relation to its use.

The Referee: That would certainly include distilled water.

Mr. J. Hunter Gray said that according to the trade list of R. W. Greeff & Co., Ltd., there was a distinction between a pharmaceutical product and a chemical.

Mr. Whitehead said that as regards distilled water, in the ordinary acceptance of the word one would not regard water as a chemical, but unquestionably it was fulfilling the most essential of chemical properties. It was, in fact, the product of the great bulk of chemical reactions. It was also a very common catalyst in chemical reactions, and therefore everything depended on whether they looked upon the phrase as ordinarily understood or whether regard was to be had to what its properties were. That was the difficulty. Taking "pharmaceutical chemical" in the latter aspect, one would logically be bound to include distilled water as a chemical, but he was bound at once to say that ordinary trade usage did not so regard it. Continuing his cross-examination, Mr. Whitehead referred to *THE CHEMIST AND DRUGGIST*, in which he said that milk-sugar was generally put under the heading of "Pharmaceutical Chemicals."

Mr. J. Hunter Gray then re-examined. Witness said that Fehling's solution was a test for sugar, and that cane-sugar also reacted in the same way as suggested by Mr. Whitehead in his cross-examination, but the reaction was of no use whatever except as a test for sugar. As to *THE CHEMIST AND DRUGGIST*, he did not see that milk-sugar could go anywhere else in that journal, having regard to the headings, unless it were under "Sundries."

The Referee (to Mr. Whitehead): Is it your view that a crude lactose would be a heavy chemical, and that lactose "R" is not? Mr. Whitehead replied that it would be a question of whether it would satisfy the condition of purity. The Referee said that, if it were not a fine chemical, then the inference must be that crude lactose is a heavy chemical. Mr. Whitehead agreed with that, broadly speaking. The Referee said on that basis, then, cane-sugar would be a chemical, and a heavy chemical. Mr. Whitehead agreed. Mr. Gamble said that the processes for the manufacture of cane-sugar and of lactose were substantially the same. There was, however, the physical difference between the two of the greater sweetness of cane-sugar. The Referee: And you think

it would be splitting hairs to call one a chemical and the other not? Mr. Gamble: I think so.

Mr. Whitehead said it might help if he stated the issue as clearly as he could. He could accept what the witness had said that it was as easy to obtain pure cane-sugar as pure lactose, but the thing of very great importance in determining whether lactose was a fine chemical was the bulk. There was an enormous bulk of cane-sugar used, and it was dealt with in enormously greater quantities than lactose, and the manufacturing batches were very much larger. If purity alone were the criterion, then there would be no more reason for putting lactose in the list than cane-sugar, but other considerations had moved the Board of Trade to put lactose in the list. The Referee said it had been pointed out in other cases that the most important thing was the amount of chemical supervision at some of the stages of the process. Was there any difference in this respect, in the view of the Board of Trade, between pure cane-sugar and pure lactose? Mr. Whitehead said there was a very considerable difference, but he had not dealt with that point through this witness, as he understood a witness was coming who was a manufacturer.

MR. PARRY'S EVIDENCE

Mr. E. J. Parry, B.Sc., said he was responsible for the preparation of the price list of Sparks, White & Co., Ltd., that had been handed in, and also the text-book on "Foods and Drugs," which had been referred to. He did not think lactose could be called a chemical or a fine chemical; it was a foodstuff, and it did not differ in any important respect from other foods such as bread, starch, or sugar. It only differed from bread in that bread is not an individual compound, but, compared with starch or sugar, there was no distinction. There was no definition of the word "chemical" that he was aware of which would include lactose and exclude starch or water, and the reasons which the Board of Trade had put forward for placing lactose in the list were also complied with by sugar and starch, yet they were not included. There was not a substance in the world's consumption that did not have chemically reactive properties, and in that respect lactose might be said to have reactive properties, inasmuch as it began as lactose and finished up by being decomposed by the physiological functions of the body. He did not regard that as chemically reactive, however, in the ordinary sense of the term.

The Referee: Have you seen any reason to modify what you said in the santonin case, as far as it applies here?

Mr. Parry said he had not. The only point was with regard to the very difficult question raised concerning natural camphor, which, in his opinion, was not a chemical, and was exactly the same as milk-sugar as regards its production and want of reactivity. He believed that the proper definition of a chemical was a substance which came into existence by chemical reaction; he would like to use the expression "and/or is used to take part in chemical reactions."

Continuing, Mr. Parry, in answer to Mr. Gray, said he did not agree that the preparation of lactose was a matter of considerable chemical difficulty. There was no more difficulty than in manufacturing any other substance, and considerably less than in making cane-sugar. Conditions of cleanliness, of course, must be observed, and trifling tests had to be made from time to time. These were titration tests, which were the simplest operations in the analytical laboratory. In the ordinary way these tests were a matter of routine, and to test the amount of acid did not take more than five minutes. Greater difficulties were introduced if the whey was delivered in a badly contaminated condition through fermentation; therefore, it was necessary that the whey should always be used up in a fairly fresh condition, and there was no difficulty about that if the works were properly organised and the supplies of whey were not hundreds of miles away from the factory. In that case there might be trouble from fermentation; the proteids would have been rendered soluble, it was difficult to precipitate them, and filtration became a matter of great difficulty. In answer to the Referee, Mr. Parry said he had never seen lactose classified or defined as a fine chemical.

MR. PARRY CROSS-EXAMINED

Cross-examined by Mr. Whitehead, for the Board of Trade, Mr. Parry agreed that the source of the supply of whey was of great importance, and that greater difficulties were introduced if the whey did not always come from the same source. At the same time, the prevention of fermentation called for a degree of skill which was required in every business, and it was not a difficult matter. Questions were put as to witness's evidence in the santonin case, and Mr. Parry said he did not go so far as to say that santonin did not undergo any chemical reaction in the body, because it did not pass out of the body as santonin.

The Referee: I had a shock when I looked at your book on "Foods and Drugs" just now and saw santonin included as a fine chemical. (Laughter.)

Mr. Parry said there was no other place to put it. The heading of "Fine Chemicals" also included the carbohydrate foods. It was a carbohydrate food, and there was no other place to put it in the book. He wished to add that at the time he gave his evidence in the santonin case he had no idea santonin was in the book, and only came across the inclusion of santonin under the heading of "Fine Chemicals" when he was going into the present case.

Continuing his evidence under cross-examination, Mr. Parry said that, as far as he knew, lactose was not used for any purpose in which it entered into chemical reaction, except in so far as there were reactions in its use in the body as food. There might be an ounce or so used in the laboratory. Counsel suggested that it was used for the silvering of mirrors, but Mr. Parry replied that, although that was the case at one time, he doubted whether it was used for that purpose now. He believed it had been dead for years for that purpose. Mr. Whitehead: At all events, you do agree that in the body sugar is taking part in chemical reactions? Mr. Parry said that every substance that entered the body and did not leave it in the same form undergoes chemical reaction. Lactose undergoes exactly the same chemical reactions in the body as the potato or a beefsteak. Mr. Whitehead: If that is what you mean, we will leave it there.

Answering further questions, Mr. Parry agreed that lactose is a chemical compound, as was every substance having a definite composition, but lactose was not a chemical. The term "chemical compound" was a perfectly well understood one among druggists, and there was no argument about it; but it meant something entirely different from "chemical," which was a word which had no scientific meaning and was never used in any scientific text-book. The principal reasons, apart from it being a foodstuff, why he did not regard lactose as a chemical were that it was not used for any purposes for which a chemical is practically universally accepted as being used; it is not prepared by a process or reaction which can be said to correspond to a chemical process or chemical reaction; and, thirdly, it is a foodstuff, and only a foodstuff. If he could not rely on these, then he must throw them all overboard and at once say that starch, sugar, and water are chemicals.

Mr. Whitehead took up the point as to starch, and said that this had a cellulose structure which lactose had not, and was something more than a mere hydrocarbon. Mr. Parry said the cellular tissue in the case of starch was very minute quantitatively, and while agreeing that cotton is something more than a carbohydrate he would not like to go so far as to say it is a chemical. Mr. Whitehead then dealt with the question of the use to which a substance is put in determining whether or not it is a chemical, and referred to the use of common salt in many operations, such as salting out in soapworks, which was not a chemical reaction. Witness agreed that the fact of salt being used for non-chemical reactions did not deprive it of the right to be regarded as a chemical because so many hundreds of thousands of tons of common salt were used for large chemical operations. As to the manufacture of lactose he had not seen it made, but he had been consulting chemist to a factory which made butter, casein, and some lactose; they did not make more than a few tons, and then

gave it up. He had the samples to test, and they were of B.P. purity. There was no difficulty whatever about the manufacture, although he himself had not been inside the factory. The manufacture proceeded day by day automatically without any special degree of skill as long as they did not use highly fermented whey. There was no great difficulty in getting rid of the protein matter, even down to the last small proportion. Mr. Whitehead: You have not seen the process carried out? Mr. Parry: No. Mr. Whitehead: Then how do you know? Mr. Parry said he knew the processes which were fully described, and he knew the difficulties and just where they were likely to arise and how easily they could be overcome. He protested against the suggestion that had been made during these cases that unless one had been inside the factory one did not know anything about it, whereas if a consulting chemist was rushed down for a day to inspect a factory he knew all about it.

Mr. Whitehead: Was it the learned Referee or Mr. Hunter Gray who suggested that? Mr. Parry: No, yourself on another occasion. (Laughter.)

EVIDENCE FROM HOLLAND.

Mr. Corneles Merinus Dhont, director "N. V. Hollandsche Melksuikerfabriek," Amsterdam, said his firm had two factories, one at Uitgeest, near Amsterdam, and the other at Sains du Nord, France. The process of extracting the lactose from the milk was carried out continuously night and day, and at each factory there were two analytical chemists who had previously been in a sugar factory where they made cane-sugar. These chemists made the analytical tests in the laboratory. During the night-time none of the chemists was on duty, the only supervision then being that of the foreman, who was capable of making the same kind of analytical tests as the chemist. He was inclined to think that the machinery required for lactose was more complicated than that required for the manufacture of cane-sugar. Dealing with the process, witness said there was no difficulty in making the proteins or albumenoids in the whey insoluble nor in getting rid of them when they had been made insoluble. The addition of acid made them insoluble, and the filter press was made use of to get rid of them, and that was merely a mechanical process. The mineral salts were got rid of at the same time as the protein matter. The process took about eight hours to complete in order to make crude milk-sugar and the refining took place on the next day, so that it occupied about two days altogether. The refining was merely recrystallisation. There was greater difficulty in refining lactose than in refining cane-sugar. Of the total output of his factory (600 tons per annum), 200 tons was exported to Great Britain.

The Referee: At any stage in the process do your chemists take any part except as regards analysis? Witness said they did not. There was only supervision by the foreman.

Cross-examined by Mr. Whitehead, witness said that there were two chemists at each of the factories, and in each case one of the chemists was also works manager. The number of workpeople employed at the two factories was sixty and thirty-five respectively. The tests made either during the night or the day were lactic-acid tests, which the ordinary workman could do under the supervision of the foreman. They were titration tests. It was necessary to test the whey, because the farmers had a habit of putting water into it. (This statement induced Mr. Whitehead to suggest that "Little drops of water, put into the milk, make the farmer's daughter dress herself in silk," apparently applied in Holland as well as in this country.)

Witness, continuing, said they did not test for the percentage of albumenoids, because that was nearly always constant, but they tested for ash in the crude lactose and also in the refined. It was not necessary for this to be done during the night, the practice being to take samples and leave them for the chemists in the morning. The workmen were supplied with tables which enabled them to know exactly what action should be taken if the amount of lactic acid was too high and so

on. Mr. Whitehead: Supposing they find they have added too much lime. What happens then? Witness replied that they never did that. He got his whey from several sources and examined it with the polarimeter. It was then put into copper vessels having a capacity of about 3,000 litres, to which was added the proper quantity of lime or alkali. There was a good deal of colloidal matter, but it was not found necessary to have a second coagulation to get rid of it, nor did the presence of the colloidal matter make it difficult to filter, because the whey was never fermented too much when it was used, the greatest distance from which it was obtained being ten to twenty miles. After the albumenoids had been separated out there was a further concentration and crude lactose crystallised out, which was put into a centrifuge and separated from the mother liquor, the salts and acids being got rid of at the same time. The crude lactose was then dissolved, filtered, and crystallised. The process which he adopted made use of only one crystallisation, and that was where the difference was between lactose and cane-sugar; a pure cane-sugar could not be obtained without two or three crystallisations. Witness would not agree that a very slight excess of lime would cause serious trouble; the effect was merely to lower the yield. The copper vessels used were the same as used in cane-sugar refineries, being double-bottom steam-jacketed vessels. The filter presses and evaporators were quite the ordinary kind of apparatus, and most of it could be used in other factories. Asked when it was that witness had heard lactose called a fine chemical, he said that he had never heard it called a fine chemical before he came into the room that morning.

MR. BLENKINSOP'S EVIDENCE

Mr. Philip Blenkinsop, director of May & Baker, Ltd., said he did not exactly know what a pharmaceutical preparation is. Presumably what was meant was a preparation supplied to pharmacists. So far as he was aware lactose had never been regarded as a fine chemical in the trade nor a chemical at all. He agreed with the previous evidence as to the bulk of its use being for infants' foods and a very small proportion for bacteriological culture and as a diluent in the manufacture of tablets, which would be for pharmaceutical purposes. He had never heard of it being used commercially for silvering mirrors. His firm did not manufacture lactose but sold it. He added that he had never heard of or seen crude yellow lactose. Generally speaking, and to his knowledge, there was no industry for the manufacture of lactose in this country.

Cross-examined, witness said he had never heard it discussed whether lactose was a fine chemical or not. His firm also dealt in heavy chemicals, but he knew very little about their manufacture. He agreed that use came into the question of determining whether a chemical was a fine chemical or not, but it must be taken in conjunction with purity. He would not call potassium bromide a fine chemical, nor salicylic acid, except under certain conditions, such as if it were used for medicinal purposes. If salicylic acid were used for the dye industry, then he would call it a heavy chemical, if of equal purity in both cases. He did not regard hydroquinone as a fine chemical. He was unable to help in any way as to what is a fine chemical. Mr. Whitehead said that from his point of view he was content to take it on purity alone, but he presumed Mr. Hunter Gray would not like that.

At the conclusion of this witness's evidence Mr. Gray said he had further evidence, but he did not think it would assist the Referee, and therefore that would conclude his case.

BOARD OF TRADE EVIDENCE

Mr. John Christopher Stead, F.C.S., who is in charge of the whey utilisation work of the Ministry of Agriculture and Fisheries, said the object of this work was to make use of material now being sent to waste and causing considerable trouble in regard to sanitation. Therefore the Board of Agriculture had built a small factory for experimental purposes, and he was manufacturing lactose from these materials.

Mr. Gray asked what was the object of calling this evidence. Mr. Whitehead said Mr. Stead was the first of two or three witnesses of his who were trained chemists who had had experience in the manufacture of lactose.

Mr. Stead, in answer to questions by Mr. Whitehead, said he was in charge of the factory which the Ministry of Agriculture and Fisheries had built to manufacture lactose. Before taking on this work he had been engaged for ten years in the manufacture of fine chemicals. Describing his process for the manufacture of lactose, he said he received the whey from the cheese factory, subjected it to a certain temperature, and separated the residual butter and fat. The acidity of the whey was then tested, and, when sufficiently corrected, the whey was heated to 200° F. This precipitated the bulk of the lac albumin—e.g., the whey was passed through the filter press, which separated the lac albumin, the clear liquid being further neutralised, from which was obtained a further precipitate of albumenoid. The liquid, after being neutralised, was concentrated to the crystallisation point, and the crystals were centrifuged and dried. This gave crude lactose, which was subjected to further crystallisation in order to get the refined product. When the factory started he had four men and four women, and he still had them, but there was no other chemist besides himself, although he would shortly be wanting one. (Photographs of the works were shown to the Referee, but their location was not mentioned throughout the proceedings.) Mr. Stead added that the whey was obtained from one source, but even then it could not be relied upon to have a constant quality, and it was necessary to ascertain the quality of every consignment by means of a titration test. During the process of manufacture tests were continually made, both before the coagulation process and afterwards. Later he estimated the amount of nitrogen to see how much albumenoid was left in the final product. Samples of the product were sent to the Government laboratory in Clare Market, but he could not say how many samples he had sent there. The whey required careful watching by a chemist with regard to acidity, and he himself did that, but he deputed the actual running tests to an assistant. From his former experience, he was of the opinion that lactose required infinitely more careful supervision than did the manufacture of many fine chemicals. The batch he employed was 1,000 gallons, which would be a small quantity for a heavy chemical. At the same time, they would not use such a large batch in fine-chemical manufacture; in the case of potassium iodide, for instance, the batch was 300 to 400 gallons.

Answering the Referee, Mr. Stead said the works he was in charge of started in May last year, and he was giving his whole time to them. None of the workmen had had any previous experience. In the course of further answers, Mr. Stead said that from his experience of the manufacture of fine chemicals he should say that lactose ought to be regarded as a fine chemical, having regard to the process of manufacture and the trouble involved. He agreed that the plant could be broken up and used for other purposes, but there were some parts which could not be used for fine-chemical manufacture.

Mr. Whitehead: Why does the Board of Agriculture desire to have lactose extracted?

Mr. J. Hunter Gray said that, whatever might be the object of the Board of Agriculture in carrying out this work, he submitted that it was of no importance to the Referee or to this case.

Mr. Whitehead: I have put the question, and we know why the answer has not been given.

MR. STEAD CROSS-EXAMINED

Mr. J. Hunter Gray, cross-examining, ascertained from witness that he had been experimenting for four years, but before May, when the factory was opened, he had only been carrying out laboratory tests, to the extent of a few pounds at a time. In 1920, however, he had made a ton of lactose from dried whey solids which contained about 70 per cent. of lactose. He had designed the factory he was now working, and although he had not seen a lactose factory previously, he knew what he wanted.

Mr. Gray: And proceeded to learn the business? Mr. Stead: Not at all, we knew it. Witness agreed, however, that the workpeople did not. While he had not been disappointed with the present unskilled staff in regard to the carrying out of routine tests, he was convinced that on a large commercial scale they would require constant supervision. The plant could deal with 3,000 gallons per day, which was the output of the cheese factory; but, so far, the actual amount dealt with had not exceeded 2,000 gallons per day and the lactose had not yet all been crystallised and purified, owing to the fact that in starting the factory many difficulties cropped up which had nothing to do with the process at all.

The Referee: How many tons of lactose did you produce? Mr. Stead said from 15 to 20 tons of crude and partly refined lactose. He had made more than 1 cwt. of B.P. purity but probably less than half a ton; it had not come on to the market yet.

Mr. Gray pointed out that witness had to compete with 1s. 3d. per lb., and anything in the way of highly-skilled supervision would soon wipe out any profit. Mr. Stead, however, would not agree that the difficulties ordinarily encountered in the works were such as an ordinary workman could deal with without chemical supervision. Nor would he agree with Mr. Dhont that the necessary tests could be carried out by a workman: it was to be noted, said Mr. Stead, that Mr. Dhont had mentioned that samples were taken at night and kept until the morning for the chemist to deal with. The mechanical part of the test might be done by a workman, but it required a chemist to interpret the results. The Referee: If you had a foreman trained to the job, could not you go away for a day or two with a calm mind? Mr. Stead agreed that he could, but he would want to see what had been going on when he got back. The Referee: A wide supervision would be necessary, then, if you had a competent foreman? Mr. Stead agreed, and added that that was very much the type of supervision in fine-chemical manufacture, at times. Continuing, Mr. Stead said that at no time had his factory worked a night shift, but a night shift would have to be started very soon. Mr. Gray: The Government has spent some thousands of pounds on this? Mr. Stead: Yes. Mr. Gray: I hope you are going to get something out of it soon. You have to compete with the imported stuff, you know. Mr. Stead said that the factory was started before the Act was thought of.

Re-examined, Mr. Stead said that when the workmen were trained they still required supervision. There must always be chemical laboratory work going on in a factory like this, and the workmen could not be expected to interpret the tests in all cases. The Referee: Does this fairly summarise your view: that if you have a foreman who knows his job it would be sufficient, apart from the analytical work, for there to be a wide supervision by the chemist? Mr. Stead said he should expect the laboratory to look after the foreman and he himself would look after both. The laboratory chemist would guide the foreman in what he should do. The Referee: But apart from that wide supervision, would it be necessary for a trained chemist to supervise every operation? Mr. Stead said he had known very good products to be produced by illiterate men who had been doing the same things for years. But they had been trained in the first instance, and that applied to both heavy and fine chemicals.

AN EXPERIMENTAL PLANT

Mr. C. Dampier Whetham, F.R.S., Fellow of Trinity College, Cambridge, and author of a book on the theory of solution, said that he regarded himself as a chemical physicist rather than a physicist with chemical interests. He said that he had a small farm of his own, and was contemplating the erection of a factory to deal with the whey from that farm, with a view to developing the process of manufacture on rather different lines from the ordinary process. His experience was that in order to obtain the best coagulating effect it was important to measure carefully the right proportion of alkali, and these measurements should be carried out by a chemist. In

this he was speaking from his laboratory experiments, as his factory was not yet working, the delay having been due to the inability to obtain certain apparatus. His chemists, however, had been carrying out certain laboratory tests. The first stage in the manufacture was to obtain the whey from the cheese-room, and after letting it stand for a while, to skim off the fat; or a more satisfactory way might be to employ a centrifugal separator. So far, however, he had only skimmed it off. The next stage was the coagulation of the albumen. He considered this very troublesome, and he had found two stages were required, although he gathered from one of the witnesses that he had found it possible to do it in one stage. Personally, however, he had not succeeded in doing that, except by accident. It was quite easy to get rid of a considerable percentage of the albumin even if the adjustment of the hydrogen ion was not as accurate as it should be, but in order to get rid of the whole of the albumin satisfactorily two stages were required, and in order to succeed it was necessary that the adjustment of the hydrogen ion should be as nearly as possible accurate. Therefore, it was necessary to test from time to time what the concentration was; or, in other words, the acidity. Working on the laboratory scale, as he had mentioned, he had been able to produce fairly pure lactose, but in order to get rid of the last trace of mineral salts and get a B.P. purity, he had found recrystallisation at the end necessary. He had never been able to get it with one stage only. There was the first coagulation, then the second coagulation, and then the crystallisation from the evaporated liquid, and after that again another crystallisation. As the result of the first crystallisation the lactose was generally yellow or crude, although what was obtained in the laboratory by the first crystallisation was probably purer than ordinary crude lactose. He had also used a decolorising agent, but was not sure whether he would not be able to get rid of that process later on. His plant would only deal with 300 gallons per day when it was working, and was, of course, only an experimental factory. Having tested the lactose he had already prepared, and also having sent it to other people, he was satisfied that it was a perfectly definite chemical compound. Its structural formula was given in the textbooks. Asked as to whether he had formed any opinion whether lactose was a fine chemical, Mr. Whetham said it was for the Referee to decide that, but until he heard of this inquiry it had never crossed his mind whether lactose was a chemical or a fine chemical. He was not an expert in trade terms, and he should be sorry to express any view. Asked by the Referee as to his work, Mr. Whetham said it was teaching and research.

MR. WHETHAM CROSS-EXAMINED

Mr. J. Hunter Gray cross-examined. Witness said that his plant was primarily for experimental purposes, but his intention was to continue it if he found it could be made a commercial success. There was a good deal of whey wasted in the neighbourhood, and it might be possible to use that, as well as the whey from his own cheese-room. Last summer he had a chemist working on the subject, and from the bacterial changes which took place in whey it was clear that it was a very complicated substance. As to testing, he did not use the titration test, but another which he did not wish to describe; but it was a test which enabled him to find out what is the correct proportion of alkali to produce and the best acidity for coagulation. By this method, however, it was not necessary to know the acidity in order to get the best coagulation, and that was where he thought he had made an improvement on the old method. The acid test was a very simple test, but he did not think such good results were obtained by simply measuring the acidity as by the test which he used. Witness was inclined to agree with Mr. Gray that as long as things went smoothly these operations could be left in the hands of workpeople who had been trained for their job, but he added that he was satisfied things would not go smoothly, and a chemist on the spot would be necessary. The Referee: If you had been running the process for five years instead of a few

weeks there would be a better chance of it running smoothly.

Mr. Whitehead handed in figures of imports for 1920. The total quantity of lactose imported was, he said, about 400 tons, and it came from Germany, the Netherlands, the United States, and some other countries. Apparently the Netherlands were the greatest exporters, because they sent, roughly, one-third.

THE MANUFACTURE OF LACTOSE

Mr. Alfred Siebold, chemist to the Lactose Milk Sugar Co., whose works are at Tipperary, Ireland, said that the manufacture of lactose had been carried on there since 1913, and he had been in charge of the works since they were started. The original proprietors of the works had experimented in Somersetshire before commencing operations; he himself had had laboratory experience as a consulting chemist, and there was a good deal of experience to guide them in the manufacture of lactose. Prior to taking up this work he had been engaged in the manufacture of natural colouring matters, and it was because of that experience that he got the post of chemist to the Lactose Co., because the directors thought he would be likely to have a knowledge of the plant required. So far as the use of the plant for other purposes was concerned, it could only be used for so-called pharmaceutical chemicals, and would not lend itself to heavy chemical manufacture. The plant consisted of wooden vats, evaporators, filter presses, drying machines, and centrifugal machines, and he agreed that these could be used in the manufacture of many fine chemicals. The works at Tipperary were at present closed, but he was on his way to start them again for the season when he was telegraphed for to come to this inquiry. He usually employed fifteen men, and had employed another chemist. He himself, however, felt it essential that he should always be in and about the works watching what was going on. He had worked double shifts, and when that was the case, and he had another chemist, there was always one chemist on the works continually. Asked what was the position when he did not have the other chemist, witness said he had to be there as long as he could personally, and he had taken three 40-hour shifts in a week. Beyond that, he arranged so that he could be called if he were wanted. He lost two chemists during the war, and had not had a second chemist for three or four years. A youth, however, had been trained to do some of the routine tests, and if the result was not what was expected, then this youth reported to him. More than one kind of whey came into the works, and it was not necessarily cheese whey, and it was his practice always to test the whey when it came in. Sometimes the youth did it, and the figure was put down in a book. Upon the acid figure so obtained depended whether more acid was added. After that the whey was boiled and filtered, and came up for a second treatment, in which other chemicals were used, and the adjustment of that was often a matter of nicety. Samples were taken after the first coagulation and filtration, and also after the second coagulation, and great care had to be taken in determining how much acid to add. Very often the results of the tests led to a modification of the subsequent stages of the process. He did not add lime in the process, but some other alkali, and great care had to be taken because of the poisonous nature of some chemicals if there was an excess. That would give a serious reduction in the yield of the final product, and, moreover, in this manufacture, if a blunder was made it remained right through the process and often in an aggravated form. After the second test for acidity, if everything was all right, there should be no necessity for further tests if they were making what he called ordinary grade, which was 97 to 98 per cent. purity; but for B.P. purity further tests were required to ensure the reduction of the mineral matter to the proper standard. As a matter of fact, he got a sale last year for his whole output for the purpose of breweries in the ordinary grade, and did not make B.P. standard. Generally speaking, he thought the difficulties with his process were greater than in the Continental method of manufacture. He found it necessary for him

as a chemist to watch very carefully what was going on if the business was to pay, because serious difficulties were often encountered in getting rid of the albumenoid content of the whey, and it would not be desirable to have the work in charge of anyone who was not a chemist. There were also difficulties in removing the proteid matter, but the greatest difficulty was with the albumenoid matter. Asked as to his views whether lactose was a chemical, witness said that he had not thought of it much prior to twelve months ago, but he would now regard B.P. lactose as a chemical or a fine chemical.

The Referee: Did you ever advertise yourselves as manufacturers of fine chemicals?

Mr. Siebold said "No," but after his experience in the manufacture of lactose he should regard himself as fully qualified to manufacture fine chemicals.

MR. SIEBOLD CROSS-EXAMINED

Mr. J. Hunter Gray cross-examined. Witness said the present company with which he was associated took over the business from a limited company, which he believed had only paid one dividend. In another year all the profits were taken away from them by the excess profits duty, and the present company started with a very bad datum line. It was true that in 1919 the company was offering its plant for sale, but that was due to the unsettled conditions in Ireland, the directors fearing that their works might be burned and wishing to get out of the business. Since 1919 the company had not paid a dividend. He himself was only the chemist, and not one of the proprietors. During the whole existence of the company it had sold only about twenty tons of B.P. lactose, but that was because they found a market for the whole output as ordinary grade for breweries. He hoped to have an output this year of 120 to 150 tons; last year the amount was smaller, but in 1917 the output was 100 tons. The company had been started with the object of making ordinary grade for brewery purposes, and it could not be used for infant-food purposes. He would not call ordinary grade a fine chemical. Mr. Dhont's evidence was counter to his own experience. Re-examined, witness said the method was to start the plant in March and continue throughout the season.

This closed the Board of Trade evidence.

MR. WHITEHEAD'S SUMMING UP

Mr. Whitehead, addressing the Referee on behalf of the Board of Trade, said that an examination of the case that had been put forward by the applicants did not reveal any substantial reason for saying that the Board of Trade had been wrong in putting lactose "R" in the list of dutiable articles as a fine chemical. So far as the books of reference and trade lists, etc., were concerned, he did not think either the applicants or the Board of Trade would get much out of them to assist. There was nothing definite either way in them.

The Referee pointed out that the Food Controller's Order suggested that lactose or milk-sugar was a food rather than a fine chemical. Mr. Whitehead replied that in the "Board of Trade Journal" for July 28, 1921, milk-sugar was to be found under the heading of pharmaceutical products, and as there were many other things in the list in that journal which were chemicals, it would be fair for him to ask the Referee to draw the conclusion that milk-sugar was included as a chemical. On the general facts of the case, however, he submitted that lactose "R" is a fine chemical, and that it would be ridiculous to suggest it was anything else. Richter's "Organic Chemistry" dealt with sugars and carbohydrates, and, in fact, with this very body, lactose, which he claimed as in his favour, as suggesting that lactose is a chemical. He invited the Referee to examine how this substance behaved, as a test of whether it is a chemical or not. Mr. Gamble had agreed that it behaved in many respects as did admittedly chemical substances, and in this connection also he drew attention to the work of Emil Fischer on the sugars, which was, he said, probably some of the finest chemical work that had ever been done. This work showed that this body entered into chemical reactions and gave rise to bodies which did not exist at the start, and

even if one looked at it only from the point of view of its structural constitution he submitted that it was unquestionably a chemical. The evidence against him was that it was a food, but the mere fact that it was used as a constituent in infants' food did not rule out the possibility of it being a chemical. The use to which a substance was put was, he submitted, of very small importance in deciding whether it was a chemical or not, and even if one considered the use in this particular case as a food, it was admitted that it was put into the infants' food as a heat producer. Therefore what was happening was that combustion took place as the result of oxidation and chemical changes, and they were getting, in the body, typical chemical reactions, as admitted by Mr. Gamble. He seriously asked the Referee to remember that in the santonin case, when he (counsel) had contended that santonin was a chemical, the decision had been against him because there were no chemical changes taking place, and that the action of santonin was simply that of an expellent of the tapeworm. No such thing happened in the present case. Lactose was put in the body as a food, and it had natural chemical properties in the body, and it would be of no use if it had not.

The Referee said that in the santonin case Mr. Carr had said that sugar was a heavy chemical, and that he had always so regarded it. At the same time, there was a difficulty in his mind in seeing how the mere matter of weight produced could turn a thing into a fine chemical. Mr. Whitehead said they had all experienced that difficulty, because many heavy chemicals were prepared of great purity, although they were always regarded as heavy chemicals.

The Referee asked if it could be thought that the Legislature, in passing this Act, ever intended such things as starch and sugar to be regarded as chemicals, and that the use of the word "chemical" was intended to be so broad as to include foodstuffs of that kind. Mr. Whitehead said he should unhesitatingly say "Yes," subject to limitations. Saccharin, for instance, was regarded as a chemical, and there were any number of references to similar substances in *THE CHEMIST AND DRUGGIST* under the heading of "Pharmaceutical Chemicals." With regard to the question of whether lactose was a fine chemical, Mr. Whitehead dealt with the various tests which have been put forward as indicating that a substance is a fine chemical, and claimed that the care in manufacture which had been indicated by his witnesses was sufficient to place lactose as a fine chemical, quite apart from the questions of purity and quantities in which it is manufactured compared with admittedly heavy chemicals.

The Referee pointed out that the last witness had said he regarded lactose as a fine chemical, although he had only made crude lactose. Mr. Whitehead said the position was that there is no crucial test of a fine chemical. On the question of purity alone the answer was tremendously in favour of this being a fine chemical, as was also the question of quantity. Then there remained the question of manufacture and supervision, and he contended that his evidence was all in favour of lactose being a fine chemical.

THE CLOSING SPEECH

Mr. J. Hunter Gray, accepting this, then made the final speech, and said that he adhered to the statements he had made in opening the case, that in no sense can lactose "R" be regarded as either a chemical or a fine chemical. For this purpose he accepted the view laid down in the decision on the santonin case that a chemical was a substance manufactured by chemical processes and used primarily for the purpose of chemical reaction, and his submission was that it could not possibly be contended that lactose came within that definition. Lactose was not a substance that was used for chemical reaction at all, but was solely a food. The previous cases had shown how difficult it was to arrive at a definition, and therefore they had to be guided, to some extent, by a knowledge of the common conception of what these things meant. Would anybody in his senses, except perhaps for the pur-

poses of an inquiry under this Act, ever regard a food as a chemical? If they were to say that wherever there was any chemical action at all, then the substance was a chemical, they would get the most absurd bodies classed as chemicals, because chemical action was always more or less taking place. Quite clearly, however, this was not a chemical within the meaning of the Schedule to the Act. He was not in the least interested in discussions whether lactose "R" was a chemical compound or a chemical product. As one of his witnesses had said, the word "chemical" did not have any scientific definition, and it was not found defined in any dictionary or scientific book. Then came the question of whether lactose is a fine chemical. The evidence that he had brought from Holland had not been contradicted in any way, and there it was shown that 400 tons of lactose was being turned out every year without any chemical supervision and under the charge of foremen. The chemists were in the laboratory doing necessary analytical work, but the actual routine tests were carried out by the foremen or workmen. In these circumstances, could anyone say that this was a complicated process requiring skilled supervision?

Mr. Gray continued that where the raw material could be obtained in sufficient quantities, as in Holland, the process of manufacture presented no difficulties at all and there was no need to have a skilled man in charge all the time, and even the witnesses for the Board of Trade had not suggested that difficulties were continually arising in manufacture. As to the literature, in not one single book or publication was lactose referred to as a fine chemical; and having regard to the fact that lactose is made in large quantities in Holland and France one would have expected to find it in some price list or catalogue as a fine chemical if it were really regarded as such in the trade. In all the literature that had been referred to, lactose was mentioned in most cases under the heading of food. It had been said that because it was mentioned under the heading of "Pharmaceutical Chemicals" in *THE CHEMIST AND DRUGGIST*, that was in favour of the Board of Trade. Personally, he did not know what a pharmaceutical chemical was. It might not even be a chemical at all in the sense that the Act of Parliament had considered the matter, and it was apparently put under that heading in *THE CHEMIST AND DRUGGIST* because there appeared to be no other heading under which it could be put. Any definition of the word "chemical" which was going to include pure water, cane-sugar, and starch was making a farce of the word, and it was not giving the Legislature credit for common sense if it was imagined that it contemplated including distilled water or cane-sugar as fine chemicals. Cane-sugar must have been present in their minds when the Act was passed because Part II. of the Act referred to food. He admitted that the purity common to fine chemicals applied to lactose, but he did not admit that the quantities in which it was handled were those of fine chemicals. On the contrary, the quantities were large and approximated to those of heavy chemicals.

The Referee: It is conceded that the quantities are large for fine chemicals. Mr. Gray said that that aspect alone would exclude lactose from the definition of fine chemicals. The Referee said that one point in favour of Mr. Gray was the kind of person who sold and handled this stuff, and it was with that in mind—because it had occurred in the earlier cases—that he had asked one witness whether he considered himself a fine-chemical manufacturer. It appeared that lactose was not bought from fine-chemical importers, or even people in the chemical trade. It was bought from farms. Mr. Whitehead pointed out that one of the witnesses for the other side (Mr. Blenkinsop) represented a firm who sold lactose and who called themselves fine-chemical manufacturers. The whole point on the question of skilled supervision was whether skilled chemists were constantly watching the operations, and his case was that no such degree of skilled supervision was required in the actual commercial manufacture of lactose on a large scale. For the reasons he had stated, therefore, he asked that lactose "R" should be taken out of the Board of Trade list.

The decision of the Referee will be given in due course.

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C. 4, March 9

TRADING in Mincing Lane produce still continues on very restricted lines, with prices mostly favouring buyers. In products like sugar, tea, spirit, and other dutiable articles, orders are being withheld, pending the Budget statement about a month hence. In crude drugs there are very few changes to record. Senega is selling in retail at previous prices. Balsam peru is dearer in New York, but London is below the American parity, the market here being governed by the heavy arrivals of the "treated" German product. Balsam tolu remains firm and scarce, with a further slight advance in the United States. Honey has been selling at easier rates, with a fair demand. Japanese refined slab camphor is easier. Menthol has appreciated about 1s. per lb. on the spot, with a jobbing demand. Cocoa butter is easier. Cod-liver oil is inclined to be firmer, the Lofoten fishing being fair only. Shellac is dearer, usual standard TN Orange having advanced about 10s. on the spot. Small supplies of vanilla at auction sold at full prices. Saffron is much dearer.

Higher	Firmer	Easier	Lower
Coumarin	Bergamot oil	Benzonaphthol	Acetone
Farina (Dutch)	Cod-liver oil	Camphor (Jap.	Caffelue
Gum acacia.	Geranium oil	ref. slabs)	Canary seed
Sudan (c.i.f.)	Lemon oil	Chrysarobin	(Mazagan)
Hydroquinone	Menthol	Citric acid	Copper sul-
Palm oil	Orange oil	Cloves (Zan.)	phate
Saffron	Sodium nitrate	Cocoa butter	Cresylic acid
Shellac	Sodium	Coconut oil	Emetine salts
Soy	salicylate	Coriander seed	Morphine salts
Turpentine		Cream of tartar	Naphtha
		Ginger oil	Otto of Rose
		Honey	Petroleum
		Pepper	jellies
		Pimento	Sandarac
		Pimento oil	Sodium
		Spike oil	prussiate
		Tartaric acid	White oils

Cablegrams

NEW YORK, March 7.—Business is fair. Sweet oil of birch (*Betula lenta*) is dearer at \$2.25, balsam tolu is higher at 50c., and balsam Peru has advanced to \$1.75. Mexican sarsaparilla is cheaper at 43c., short buchu has been reduced to 95c., and stramonium leaves to 10c. per lb.

BERGEN, March 8.—The total catch of cod for the whole of Norway since the opening of the season amounts to 7,900,000, against 9,500,000 for the corresponding week of last year, and the yield of steam-refined medicinal oil is 16,283 hectolitres, against 16,905 hectolitres for the same period of 1921. The market for finest new non-freezing medicinal oil is firmer from 98s. to 100s. per barrel c.i.f.

Crude Drugs, etc.

AGAR-AGAR is steady, with No. 1 Japanese offering at 3s. 9d. per lb. and No. 2 at 3s. 4½d. : to arrive 3s. 5d. and 3s. 4d. c.i.f. is quoted respectively.

The exports from Japan during November amounted to 88,788 kin, valued at 98,090 yen. During the eleven months ended November 30 they were as follows:

	1919	1920	1921
Kin	1,392,293	914,981	1,628,242
Yen	1,879,593	1,395,534	1,708,556

ANTIMONY.—There is no improvement in the demand either for refined or crude, the latter remaining nominally £16 per ton for spot lots and about £13 for shipment c.i.f. home ports. English refined in fair-sized lots is to be got down to £34 for ordinary and £37 for high-grade, retail lots being held for quite £2 more.

BELLADONNA ROOT.—Good Indian testing about 0.45 can be had at 10d. per lb. on the spot. Belladonna leaves offer at 110s. per cwt. net.

CAMPHOR (CRUDE) is unchanged at 3s. 1½d. per lb. on the spot, and for March-April shipment the value is 3s. per lb. c.i.f.

CAMPHOR (REFINED) is the turn easier, Japancse 2½lb. slabs offering at 3s. 8d. per lb., and March-April shipment at 3s. 5d. c.i.f.

The exports from Japan during November amounted to 2,534 piculs, valued at 485,373 yen. During the eleven months ended November 30 they were as follows:

To	1919 Piculs	1920 Piculs	1921 Piculs
British India	447	3,684	3,726
Great Britain	1,753	1,339	2,417
France	1,458	286	741
United States	15,083	2,940	1,840
Australia	20	265	703
Other Countries	671	1,489	1,810
Piculs	19,432	10,003	11,237
Yen	7,161,652	4,869,716	2,227,694

CANTHARIDES.—Chinese are steady, with spot sales at 3s. 10d. per lb.

CHAMOMILES remain stationary, good white Belgian, which are scarce, offering at about 380s. per cwt., and old crop at about 250s.

CINCHONA.—Owing to the small arrivals of pharmaceutical bark no auction will be held at Amsterdam on March 29.

COCOA BUTTER is easier, prime English offering ex works at 1s. 10d. per lb. in not less than 1-ton lots.

At the Amsterdam auction on March 7 Van Houten's "A" sold at 85.18c. per half-kilo., against 87.71c. last month, and "B" quality at 78.05c., against 82.69c. Blocker's sold at 78.05c., against 83.29c.

COD-LIVER OIL.—Our Bergen correspondent writes on March 4 that the Lofoten codfisheries gave only an insignificant result last week. Up to February 25 only 1,800,000 cod were caught this year, against 4,000,000 last year. The total output of all the Norwegian codfisheries is as follows:

	Catch of cod	Yield of steam- refined cod- liver oil (hect.)	Livers for crude oil (hect.)
To February 25, 1922 ...	5,000,000	10,702	1,855
" 26, 1921 ...	6,900,000	12,571	2,337
" 28, 1920 ...	4,300,000	7,300	1,500
March 1, 1919 ...	900,000	1,400	100
" 2, 1918 ...	1,200,000	1,300	200

The market for cod-liver oil has a firm tendency, and buyers have had to pay advancing prices in Bergen owing to the small supplies; the new oil is quoted at from 98s. to 100s. per barrel c.i.f. London. In London rather more interest has been shown, and the market is in upward tendency, finest new non-freezing Lofoten oil having been sold at from 95s. to 100s. per barrel c.i.f. The improvement in Norwegian kroner has helped this market.

DEER-TONGUE LEAVES are offered at from 8d. to 9d. per lb. on the spot.

ERGOT is still inquired for, with Spanish or Portuguese offering at from 4s. to 4s. 3d. per lb. on the spot.

EUONYMUS BARK of root can be had at about 3s. 6d. on the spot.

GENTIAN is quoted at from 40s. to 42s. 6d. per cwt.

GUM ACACIA.—For forward shipment usual Kordofan sorts are dearer at 47s. to 48s. per cwt. c.i.f.

HEN-YOLK is firmer for liquid, with spot sellers of Chinese at 170s. per cwt., and for April-June shipment 85s. c.i.f. has been paid. Dried yolk is quoted at 3d. to 3½d. per lb., spray whole egg is 5d., and native dried whole is 2½d. per lb., all spot. Prime Chinese hen-albumen on spot is steady at 2s. 9d., and sellers of April-June shipment quote 2s. 6d. per lb. c.i.f.

HONEY has been selling at slightly easier prices, including good white Jamaica at 67s. 6d. to 70s., pale amber 50s. to 52s. 6d., white Cuban at 50s., and fair pale set at 42s. 6d. to 45s. Manufacturing grades of Jamaica sell at 32s. 6d. to 35s. and Cuban at 27s. 6d. to 30s. per cwt.

LEPTANDRA is offered at 10d. per lb. c.i.f. to arrive.

MENTHOL is firmer and selling in a jobbing way at from 24s. to 25s. per lb. for Kobayashi-Suzuki on the spot, market closing firm at 25s. To arrive, March-April shipment is quoted at 23s. c.i.f.

The exports from Japan during November amounted to 271 piculs, valued at 308,683 yen. During the eleven months ended November 30 they were as follows:

	1919	1920	1921
Piculs	2,246	3,551	2,218
Yen	2,301,902	5,341,202	2,100,275

MERCURY.—A widely divergent market has been again the rule, with a very quiet demand, chiefly for home use, while export business has been almost at a standstill. India has been out of the market. Italian mercury continues to be offered freely, business having been frequently done at £11 per bottle, although sellers are asking up to £11 5s. It is reported that the quotation for Spanish has remained pegged at £11 15s., but so far as can be gathered this is purely nominal. The future course of the market remains uncertain, while the view is expressed by some dealers that there is not much chance of any understanding being brought about between the Italian and Spanish mines, at present at any rate, as the attempts which were made recently proved a failure. The American market has been quiet and featureless.

NUX VOMICA.—Prices for shipment vary from 27s. to 30s. per cwt. c.i.f., compared with the nominal figure of 50s. on the spot. Contrasted with pre-war prices, there is plenty of room for a considerable reduction.

SAFFRON.—The spot value of finest Valencia is about 92s., at which sales have been made. This is believed to be the highest figure ever reached. Authentic news of the actual shortage in the November crop, it is stated, has been responsible for some speculation in Spain, and this has added to the difficulty of filling orders at reasonable prices. The range of prices on the spot on Wednesday was from 90s. to 100s. per lb. Unless the present high prices curtail the demand, there will be no prospect of a fall until the end of the year.

SANDARAC.—Sales of good pale Morocco have been made at 140s. per cwt., being cheaper.

SENEGA.—Small sales are reported at 5s. 6d. per lb. on the spot.

SHELLAC.—As suggested recently in our columns, the deliveries for last month were very large, which, combined with restricted arrivals, resulted in the warehouse stocks dropping to about 5,700 cases. The prevailing scarcity cannot be remedied very much for some time yet, although increased quantities are now afloat, chiefly for the United States. The market is about 10s. per cwt. higher on the spot, with usual standard TN Orange quality selling at from 350s. to 360s.; fine second orange is 390s. to 410s., superfine 480s., RL 410s., AC cakey 310s., and GAL 280s. Futures are dearer, the sales including March at 350s. to 352s. 6d. and May at 332s. 6d. to 352s. 6d. to 350s.

STARCH PRODUCTS are firm. Pure English rice crystals offer at £36 per ton; maize starch-powder has sellers at £13 15s. per ton spot. Spot sellers of Dutch farina quote 27s. 6d. (an advance of 9d.) per cwt., and Japanese No. 1, for March-April shipment, has been sold at 25s. 6d. per cwt. c.i.f.

SOY.—Good thick Chinese is dearer at 4s. per gallon, duty paid.

VALERIAN.—Belgian can be had at 65s. per cwt. on spot.

VANILLA.—At auction on Friday 126 tins, mostly Seychelles, offered, and practically all sold at full prices. Of Seychelles 89 tins were catalogued and sold, comprising: fine firsts, 6½ to 8 in., 10s. 6d. to 11s. 6d.; good, 6½ to 7½ in., 9s. to 9s. 9d.; 3½ to 6½ in., 7s. 9d. to 8s. 6d.; fair to good foxy and split, 7s. 3d. to 9s.; various, 6s. 3d. to 7s. 6d. per lb. Twenty tins Madagascar offered and sold, comprising good firsts, 6½ to 8 in., 11s. to 12s.; 5 to 6 in., 9s. to 10s.; fair foxy beans, 9s.; various and split, 8s. 3d. Seventeen tins Bourbon sold, including firsts of fine quality and part mouldy, 5¼ to 8½ in., 8s. 6d. to 9s. 3d. per lb.

WAX, VEGETABLE, is quiet, with spot sellers at 92s. 6d. per cwt., and to arrive 82s. 6d. c.i.f. is quoted.

The exports from Japan during November amounted to 2,159 piculs, valued at 71,550 yen. During the eleven months ended November 30 they were as follows:

	1919	1920	1921
Piculs	14,140	6,664	24,501
Yen	628,285	325,855	874,525

Seeds and Spices

CLOVES are easier, with fair Zanzibar on the spot offering at 1s. 2½d. to 1s. 3d. per lb., and for February-April shipment business has been done at 1s. 0¾d. per lb. c.i.f., with buyers at 1s. 0½d. c.i.f.

GINGER.—Medium or fine Jamaica is unobtainable, the price being nominal at 200s. New crop Cochin is quoted at 60s. to 65s. per cwt. and old wormy at 50s. per cwt. Prices for shipment have fluctuated, with 70s. per cwt. c.i.f. quoted.

PEPPER is easier, with spot sales of fair black Singapore at 3½d. to 4d. Lampong is 4½d., Tellicherry is 4¾d., and Aleppy 4¼d. per lb., all spot. To arrive, fair Singapore for March-May and April-June shipment is easier at 3¾d. per lb. c.i.f. d.w. White pepper is steady, with sales at 8d. for fair Muntok on the spot; for March-May and April-June shipment 7½d. c.i.f. has been paid. White Singapore on the spot is 7½d., and March-May shipment has sellers at 7¼d. c.i.f.

PIMENTO has been selling at slightly easier rates, a fair business having been done at about 2½d. per lb.

SEEDS.—The following are current spot quotations: Spanish ANISE is 77s. 6d. per cwt.; Russian is unchanged at 70s. CANARY SEED is dull, with Mazagan offering at 77s. 6d. per quarter; Larache is 65s. to 70s.; Spanish is 100s., Tangier 82s. 6d., Saffi 77s. 6d., and Casablanca 77s. 6d. MOROCCO CARAWAY is firm at 26s. per cwt., and Dutch is 34s. to 37s. 6d. Sound CORIANDER, 27s. 6d.; wormy, 11s. to 20s., as to quality; sound and musty, 24s. per cwt. CUMIN SEED is 52s. 6d. to 55s. per cwt., as to quality. DILL SEED is obtainable on the spot at 27s. per cwt. FENNEL SEED is 47s. 6d. per cwt. for sound. FENUGREEK SEED is 10s. 6d. to 11s. 6d. per cwt., as to quality. Manchurian HEMP SEED is 17s. per cwt. MOROCCO LINSEED is 24s. 6d. per cwt. on spot. Good English yellow MUSTARD SEED is 34s. per cwt. on the spot.

Essential Oils

DEMAND is fair for one or two articles such as West Indian sweet orange oil, several large holders having cleared their stocks. Buyers of Ceylon cinnamon leaf have also been active, and this oil is very firm. Sicilian oils are generally dearer, but the actual value of lemon is difficult to gauge. Ginger and pimento oils are easier. Spanish spike is cheaper on the spot, and otto of rose is offered at cheaper rates. Bourbon geranium after easing slightly is again firmer; considerable purchases have been made and spot stocks are scarce. Coumarin has been in good demand at advancing rates.

ANISE (STAR).—Fair business has been done on the spot both for home trade and for export requirements, up to 2s. per lb. having been paid. A limited quantity may be obtained at 2s.; up to 2s. 1d. is quoted for small trade lots. On c.i.f. terms 1s. 11d. could probably be done, up to 2s. 1d. being the first-hand quotation.

BERGAMOT is quoted firmer at from 19s. to 20s. per lb. c.i.f. for 37 to 39 l.a. On the spot 20s. to 20s. 6d. is wanted.

CAMPHOR.—White essential is nominal for spot at 100s. per cwt., and brown at 95s.

The exports from Japan during November amounted to 221 piculs, valued at 8,762 yen. During the eleven months ended November 30 they were as follows:

	1919	1920	1921
Piculs	10,154	23,369	6,213
Yen	322,022	839,429	128,453

CARAWAY.—Dutch distilled is unchanged at from 7s. to 7s. 3d. per lb. for rectified.

CASSIA.—Sales of 80 to 85 c.a. have been made at 4s. 9d. per lb. spot; c.i.f. to arrive is 4s. 2d.

CINNAMON.—Ceylon leaf has been in fair demand with 5½d. to 6d. per oz. paid. Spot closes firm at 6d. For c.i.f. to arrive 5½d. is wanted in some directions.

CITRONELLA.—Ceylon is steady at 2s. 0½d. per lb. spot and easier c.i.f. to arrive at 1s. 10½d. For estate oil 2s. 2d. is wanted. Java or Burmese is 2s. 11d. to 3s. per lb. spot.

EUCALYPTUS has been in fair demand for B.P. oils at

from 1s. 5½d. to 1s. 7½d. per lb., according to percentage of cineol and quantity.

GERANIUM.—Bourbon is steadier after a slight drop, and 21s. to 22s. per lb. is the present spot value. The lower figure is reported paid. Buyers appear still to be active, and large purchases have been made for export, the remaining stock being small. The c.i.f. prices for the November crop have advanced.

GINGER is quoted easier on the spot at 26s. to 28s. per lb.

GINGERGRASS.—“Insoluble” is very dull; holders quote 9s. per lb., nominal, but less would be readily accepted.

LAVENDER.—The demand for French is slow, and, although conditions regarding supplies are unaltered, some holders will shade present value of 38 to 40 per cent. ester to 16s. per lb.

LEMON is dearer, although it is difficult to report on the present position. Owing to the failure of the Californian lemon crop, America has been making heavy purchases of the fresh fruit, and the oil, in consequence, firmed up. Business is reported done at 3s. 9d. c.i.f., and up to 4s. is wanted. Spot holders state that it is difficult to get business at these figures; certain brands are selling at 3s. 6d., and even less.

LEMONGRASS.—Cochin is quiet at 2½d. per oz. spot and 2½d. c.i.f. to come forward.

LIME.—Distilled is unchanged at 2s. 3d. per lb. spot, some importers quoting up to 2s. 6d.

MINT.—Japanese dementholised Kobayashi-Suzuki is unchanged at 5s. to 5s. 3d. per lb. spot and 5s. c.i.f.

The exports from Japan during November amounted to 98 piculs, valued at 21,761 yen. During the eleven months ended November 30 they were as follows:

	1919	1920	1921
Piculs	3.695	2.995	2.331
Yen	1.153.048	1.772.591	529.338

NUTMEG is unchanged on the spot at from 5s. 3d. to 5s. 6d. per lb.

ORANGE.—A sudden demand for West Indian sweet has practically cleared spot stocks, from 9s. 6d. to 9s. 9d. per lb. being actually paid. Replacement figures make the present spot value about 10s. 6d. Sicilian is quiet on the spot, 13s. 6d. being about the nominal value. Prices to arrive show some irregularity; certain shippers have advanced their c.i.f. quotation to over 16s. From 13s. to 13s. 6d. c.i.f. is more general.

OTTO OF ROSE is slow of sale and prices are tending lower as the year advances. Good brands Bulgarian in original vases are offered at from 25s. to 30s. per oz., the latter being the quotation for “own distillation.” Anatolian is offered round about 26s. 6d. to 30s.

PALMAROSA in pots is unchanged at 15s. to 15s. 6d. per lb.

PATCHOULI is dull and unchanged at from 40s. to 42s. 6d. per lb., as to seller.

PEPPERMINT.—American natural tin oil is steadier on the spot at 8s. 9d. to 9s. per lb. for branded oils. The c.i.f. price is unchanged at from 8s. 7½d. to 8s. 10½d., according to seller.

PIMENTO is cheaper at about 11s. 6d. per lb., spot.

ROSEMARY.—The liquidation of a fair-sized lot of Spanish has unsettled the spot market for the present; nominal value is about 1s. 10d. to 2s. per lb., according to holder. French is offered at from 3s. 3d. upwards.

SASSAFRAS.—Natural American is unchanged at from 6s. 3d. to 6s. 6d. per lb.

SPEARMINT is unchanged at 14s. per lb., spot, for American in quantity.

SPIKE.—Spanish is selling at from 3s. 7d. to 3s. 9d. per lb., according to quantity, this being slightly easier, although c.i.f. prices are unchanged. For French, 6s. is about the value, but good oil is obtainable in some directions at from 5s. 3d. in round lots.

TANSY.—American is dull and unchanged at 37s. per lb., c.i.f. to come forward, for quantity. Spot supplies are not plentiful.

WINTERGREEN (SWEET BIRCH).—On the spot quotations

are unchanged at 14s. per lb. The price in New York, according to our cable, is higher at \$2.25.

WORMSEED is selling steadily on the spot at 22s. 6d. per lb.

Aromatic and Synthetic Chemicals, etc.

BENZALDEHYDE f.f.c. is quoted at about 3s. 6d. per lb. BENZYL ACETATE and BENZOATE are offered at 3s. per lb. BROMSTYROL is quoted at from 9s. to 10s. 6d. per lb. COUMARIN has been in steady demand at advancing prices. Quotations range from 11s. 6d. to 12s. per lb., but small lots may be obtained at 11s. HELIOTROPINE is quoted at from 7s. 6d. to 8s. 6d. per lb. TERPINEOL is firm at 2s. to 2s. 3d. per lb. VANILLIN is quoted at from 38s. to 39s.

Pharmaceutical Chemicals, etc.

THE market, although continuing on the quiet side, is well sustained so far as values are concerned, owing to the advanced offers for forward positions from the Continent, particularly Germany, where railway freights and the cost of labour is still rising. Hydroquinone has advanced on the spot, and sodium salicylate is also quoted at higher figures in some directions. Among the products which have been reduced by makers are pure caffeine alkaloid, morphine, and emetine salts. Atropine is keenly cut; benzaldehyde is offered at low figures. Citric acid, tartaric acid, and cream of tartar are all cheaper. Milk sugar is unsettled pending the result of the appeal.

ACETANILIDE is well held at 1s. 4d. per lb., although the demand is still limited.

AMIDOPYRIN remains unchanged at 18s. per lb. on a sluggish market.

AMMONIUM BENZOATE continues to be offered on spot at 4s. per lb., with little interest shown.

ASPIRIN varies on offer from 2s. 11d. to 3s. per lb. from dealers, the latter figure for finest quality; the demand is not at all brisk. One of the Continental makers quotes 3s. 2d.

ATROPINE SULPHATE is subject to keen competition, sellers quoting from 14s. per oz. upwards.

BARBITONE is unaltered on offer at 11s. to 11s. 6d. per lb., with little business doing.

BENZOIC ACID is quoted at from 1s. 9d. to 1s. 10½d. per lb., as to seller.

BENZONAPHTHOL is somewhat easier at about 5s. to 6s. per lb., according to seller.

BETANAPHTHOL.—Resublimed is nominal at 2s. 9d. to 3s. per lb., with plenty on spot.

BORIC ACID.—The makers' cheaper prices as quoted last week remain in force.

BROMIDES.—Ammonium is about 10d. to 10½d.; potassium, crystals and granular, 8d. to 9d.; sodium, 9½d. to 10d. per lb. Offers are plentiful on the spot, but fresh importations must be at higher figures.

CAFFEINE.—The English makers' price has been reduced to 18s. per lb. for pure crystals. Dealers quoted slightly less.

CALCIUM LACTATE continues quite steady, although slack, at 2s. 3d. to 2s. 6d. per lb.

CHLORAL HYDRATE.—Duty-paid crystals are in little demand, with offers steady at about 5s. 3d. per lb.

CHRYSAOBIN.—Makers' prices are slightly easier, offering at 6s. 6d. per lb.

CITRIC ACID is nominal and in little demand at 1s. 10d. per lb., less 5 per cent.

CODEINE.—Makers' prices are unchanged, pure crystals offering at 14s. per oz., phosphate at 10s. 6d., hydrochloride and sulphate at 11s. 9d. per oz., net cash.

CREAM OF TARTAR is steady from British makers at 120s. to 122s. 6d. per cwt.; foreign makers quote at 116s. for B.P. quality. The Referee's decision on the appeal case is due on March 11. and in the event of it being in favour of the applicants, who ask for it to be removed from the Key List, the market is likely to ease up a little.

CREOSOTE (BEECHWOOD) remains at 3s. 3d. to 3s. 6d. per lb., with only limited business.

CREOSOTE CARBONATE remains neglected at the low figure of 10s. 6d. per lb.

EMETINE SALTS.—Makers have reduced their prices and now quote the pure alkaloid at 3s. 6d., hydrochloride at 2s., and hydrobromide at 1s. 10d. per gram.

GUAIACOL CARBONATE holds on a dull market at 10s. 6d. per lb.

HEXAMINE is well held at about 3s. to 3s. 3d. per lb., but slow to move.

HYDROQUINONE.—Sales have been made at 4s. 6d. per lb. on the spot, but new imports would be at a much higher figure; demand so far is small.

METHYL SALICYLATE continues quiet but steady at 2s. 3d. to 2s. 6d. per lb.

METHYL SULPHONAL is steadier and little offering now below about 17s. per lb. Buyers are few.

MORPHINE SALTS.—Makers have reduced their prices by 3d. to 4d. per oz., and now quote as follows: Alkaloid cryst., 10s. 3d.; precip., 10s.; acetate, 8s.; bromide, 10s.; hydrochloride, 8s.; hydrochlor. cryst., 8s. 3d.; meconate, 10s.; sulphate, 8s.; sulphate cryst., 8s. 3d.; neutral tartrate, 10s. per oz. net. Morphine diacetyl is 1s. lower at 14s., also morphine diacetyl hydrochlor. at 13s. and morphine ethyl hydrochlor. at 15s. per oz.

PARA-FORMALDEHYDE is now steadier at 3s. 3d. to 3s. 6d. per lb.

PARALDEHYDE seems to be unwanted, with good offers on spot at 1s. 8d. per lb. and upwards.

PHENACETIN is steadier at about 5s. 3d. per lb.; some offers may be slightly cheaper.

PHENAZONE remains dull but steady at 7s. 6d. to 7s. 9d. per lb.

PHENOLPHTHALEIN continues weak and dull at 3s. 6d. per lb.

PIPERAZINE is nominal on spot at 4s. per oz.; plenty offering and no demand.

POTASSIUM PERMANCANATE, B.P., is at the cheaper figure of 8d. and upwards. A fair demand continues.

POTASSIUM SULPHOCUAIACOLATE is still quoted at about 7s. 9d. to 8s. per lb., with little doing.

RESORCIN is unwanted and freely offered at about 6s. 9d. to 7s. per lb.

SALICYLIC ACID on the spot is inclined to be easier than last week at about 1s. 4d. to 1s. 5d. per lb.

SILVER NITRATE.—The price of crystals on March 8 was based on a price of 32½d. per oz., as follows: In quantities of 25 oz., 2s. 1½d. per oz.; 50 oz., 2s. 1d. per oz.; 100 oz., 2s. ½d. per oz.; 250 oz., 2s. per oz.; 500 oz., 1s. 11½d. per oz.

SODIUM BENZOATE holds at 1s. 6d. to 1s. 9d. per lb. on a dull market.

SODIUM DIETHYLEBARBITURATE remains quoted at 17s. 6d. to 18s. per lb., but is slow to move.

SODIUM SALICYLATE has hardened up during the week on account of higher prices for forward delivery from Continent. Powder, 2s. 1d. to 2s. 2d.; crystals, 2s. 3d. to 2s. 4d. per lb. from dealers, with finest Continental makers offering at 2s. 4½d. for powder and 2s. 6d. for crystals.

SULPHONAL is still neglected, with low offers at 15s. per lb.

TANNIC ACID.—Leviss remains at about 5s. 3d. per lb.; seldom asked for.

TARTARIC ACID.—English makers are competing for large business, and are reported to be willing to accept bids slightly below recent values for contracts, although raw material has advanced, it is said, to the extent of 1½d. per lb. on the finished product. Spot market is weak, with sellers at 1s. 2½d. per lb.

TERPIN HYDRATE is unaltered on quotation at 3s. 3d. to 3s. 6d. per lb.; some offers are cheaper.

THYMOL holds up well at 22s., with a few inquiries.

The following are a few spot prices: Antipyrin, 8s. per lb.; berberine sulphate, 7s. per oz.; butyl chloral hydrate, 10s. per lb.; colchicine, pure, 3s. 3d. per gram; digitalin crystals, 60s. per gram; hæmatine, 17s. per gram; hyoscine hydrobromide, 2s. 3d.; iron lactate, 5s. per lb.; iron valerianate, 14s. 6d.; magnesium glycerophos, 10s. 6d. per lb.; pilocarpine nitrate, 21s. per oz.; salicin, 17s. per lb.; santonin, £75 10s. per kilo. on the spot; silver proteinate, 8s. 6d.; sparteine sulphate, 3s. per oz.; yohimbine hydrochloride, 2s. 8d. per gram; and zinc valerianate, 15s. per lb.

Heavy Chemicals

London: March 8.

CONTINUED steadiness prevails in the "heavy" chemical market. Business, however, has been slow generally, but in one or two products where there is a scarcity of supplies on the spot values have hardened—acetic acid, for instance. There is no change of importance to record in prices from those quoted last week.

ACETIC ACID continues very firm on the spot, with few parcels about: 80 per cent. technical, £45; 80 per cent. pure, £46; 98 per cent. glacial, £57 per ton in casks and demijohns; glacial is in demand, but is scarce.

ACETONE is down on the week and now offering at about £75 per ton.

ALUM on the spot and from British makers is at about the same figures, from £12 10s. to £13 10s. per ton: demand is still small.

ARSENIC.—The feature has been the rather large order placed for Grecian for near shipment to this country, amounting to about 200 tons on the basis, it is reported, of about £32 c.i.f. The market for white Cornish is very dull, and although the price quoted is £38 delivered London, there are dealers selling at below this. Business in the home product continues to be confined to small lots.

BARIUM CHLORIDE from Continental makers is offering somewhat below British makers' price of £15 10s. per ton, but there is little demand.

BARYTES remains very steady at £4 10s. up to £6 10s. per ton according to quality.

BORAX.—The cheaper prices as quoted in last week's report are still asked by the British makers.

EPSOM SALT.—Commercial quality remains neglected, with values nominal at £7 10s. to £7 15s. per ton in single bags.

FORMALDEHYDE is about the same on the spot at £72 to £75 per ton, but there seems to be little demand for the limited lots offering.

GLAUBER'S SALT.—Commercial quality is still lifeless and nominal at £5 10s. per ton on the spot.

OXALIC ACID is maintained at 8d. per lb., but is not in such good demand, and the market is not so firm.

POTASSIUM BICHROMATE on the spot and from British makers is steady at 7½d. per lb., with but a small demand.

POTASSIUM CARBONATE remains as last quoted, at £25 per ton for 90 to 92 per cent.

POTASSIUM CHLORATE on the spot and from makers is dull, and values are weakening from 4½d. per lb.

POTASSIUM PRUSSATE from British makers is at 1s. 2d. for yellow and 3s. for red; spot yellow 1s. 1½d., red nominal.

SODA ASH (58 per cent. light alkali) from British makers for home trade only is steady at £8 7s. 6d. per ton. Spot parcels are plentiful, with little demand. Manchester and North about £8 10s., London about £10 per ton.

SODA CAUSTIC on the spot holds steady, although the demand has not improved; good offers at—70 to 72 per cent., £23 10s., and 76 to 77 per cent., £25 10s. per ton, ex wharf shipping port. Makers quote to domestic consumers on contract at £22 10s. for 70 to 72 per cent. and £24 10s. for 76 to 77 per cent. American 76 per cent. material moving on Continent fairly well at competitive figures.

SODA CRYSTALS are offered by dealers ex store at £6 5s. per ton, and by British makers at £6 10s. per ton, in bags, carriage paid to destination.

SODIUM ACETATE on the spot is fairly active at about £25 per ton.

SODIUM BICARBONATE on the spot has moved off a little, and is steadier at about £11 10s. British makers also quote at this figure for home trade only, packed in 2-cwt. bags.

SODIUM BICHROMATE continues to be quoted at about 5½d. per lb. on the spot and at the same figure by makers, but the demand is still far from good.

SODIUM CHLORATE has been slack, but spot holders' and

makers' prices are so far maintained at 3½d. per lb.; at this figure the market is weak.

SODIUM HYPOSULPHITE on the spot is slow to move, but the prices are steadily maintained—pea crystals, from £19 10s. to £20 per ton, in 1-cwt. kegs, and commercial at £14. Home makers quote at £18 per ton for photographic and £12 10s. for commercial for home trade only.

SODIUM NITRATE is quoted a little dearer this week at £14 5s. per ton for 96 per cent. refined material f.o.r. Liverpool.

SODIUM PRUSSATE from British makers is a shade cheaper at about 9d. per lb., with spot offers still at about 9½d. per lb. A fair demand has been experienced.

SODIUM SULPHIDE is unchanged on the spot at £22 for 60 to 62 per cent. solid in drums, and £23 for broken in drums. British makers ask £22 for 60 to 65 per cent. concentrated in casks.

TIN CRYSTALS remain at 1s. 3d. per lb. on a dull market.

ZINC CHLORIDE is quoted at £22 10s. per ton for 102° Tw.

COAL-TAR PRODUCTS, ETC.—Pitch has gone still higher and stands very firm at the price quoted. Naphtha is a shade lower. Other products have been quiet, with not a few inclined to go in favour of buyers, such as benzol and carbolic acid crystals. **ANILINE OIL** has been very quiet and is still quoted at 1s. per lb. f.o.b., drums free. **ANILINE SALT** is unchanged, but slow to move, at 1s. 1d. per lb., casks free, f.o.b. **DISINFECTANTS** are nominal at 3s. 9d. per gallon on a neglected market. **NAPHTHALENE** continues in but the smallest demand, with quotations unchanged but weak: Crude, £5 to £9; crystals and tablets, £16; flakes, £17; balls, £25; candles and tablets, £35 per ton, packages free. **PITCH** continues to advance in price, with the market holding very firm, closing at 80s. per ton. **TOLUOL** remains dull, with values unchanged at: Pure, 3s. 2d.; commercial, 2s. 9d. per gallon, drums extra; weak market. **XYLOL** continues very sluggish, with values about the same: Pure, 4s.; commercial, 3s. per gallon, drums extra. **PURE METHYL ALCOHOL** has brightened up and has been called for; steady at £80 per ton, ex wharf London. **CRESYLIC ACID**.—Crude, 1s. 10d.; dark 95 per cent., 2s. 2d.; pale straw 97 per cent., 2s. 4d. per gallon, drums extra; values are lower this week, with market still slack. **CARBOLIC ACID CRYSTALS**.—Steadier at about 5½d. per lb. f.o.b. United Kingdom; there has been but little demand this past week. **CREOSOTE OIL** remains slack and very weak at 7½d. per gallon. **PYRIDINE** is quiet but steady at 5s. 6d. per gallon f.o.r. works. **REFINED TAR** is steadier at 7½d. per gallon naked at makers' works; crude at 7d. **SULPHATE OF AMMONIA** is in good inquiry for export, but no material available, and none likely till May-June shipment.

Fixed Oils, etc.

LINSEED OIL has steadied, but is now at lower figures, with less demand. Turpentine is slowly recovering its recent slump. Palm oil has been active, and is dearer. Other markets are about the same as last report. **ACID OILS**.—Pales are eagerly sought for, but appear to be very scarce. Coconut, 37s.; palm kernel, 37s.; groundnut, 33s. **CASTOR OIL** remains very dull, with Hull mills' prices unchanged. Pharmaceutical, 55s.; first pressings, 50s.; second pressings, 55s. **COCONUT OIL**.—At slightly easier prices the market closes slack. Deodorised, 50s.; Ceylon, 44s.; Cochin, 46s. **COTTONSEED OIL**.—There has been some inquiry for deodorised, which is quoted at about 49s. 6d. Little movement on spot for common edible at 46s., soap-making at 44s., and crude at 40s. **GROUNDNUT OIL** remains on the quiet side, with values unchanged and steady. Deodorised, 55s.; crude Oriental, 45s. **LINSEED OIL**.—This market is much quieter, and prices are beginning to fall back. The market closed very dull and easy at: Raw naked on spot, 38s. 6d.; March-April, 37s.; May-August, 35s. 9d.; Hull, spot, 36s. 3d.; March-April, 36s. 3d.; May-August, 35s. 9d. **PALM-KERNEL OIL** has had a slow week of business, but prices are unchanged at the close. Deodorised, 48s.; crude, 41s. **PALM OIL**.—Lagos and softs have been well called

for, and are firm at the higher prices quoted. Hards are inclined to drag on the market. Lagos, 41s.; softs, 37s. 6d.; hards, 31s. 3d. **RAPE OIL**.—There has been little doing in this market. Closing prices: Refined, 55s.; crude on spot, 49s. **SOYA-BEAN OIL**.—Deodorised has been quiet, and closes at 46s. 6d. unchanged. Crude has been in large demand on the Continent, and is steady at 37s. 6d. **AMERICAN TURPENTINE**.—A slightly better tone has been lately noticeable, and business is also improving. On spot, 65s. 3d.; April, 65s.; May-June, 64s.; spot deals have been made at better prices than those quoted. Visible stocks have decreased to about 16,200 barrels, against 34,500 same time last year.

Lubricating, Burning, Mineral Oils, etc.

LUBRICATING OILS are unchanged on the spot, and no further advances have been made this week by shippers. White oils, petroleum jellies, and naphtha are quoted cheaper. Crude burning oil is weak. Other products are about the same and generally quiet. **BENZOL** remains quoted at same figure, but is very quiet and weak. Pure 3s. 3d., 90's 2s. 9d. per gallon, drums extra. **BURNING OIL** remains dull and values are easy. Crude No. 3 8½d., No. 2 8d. per gallon, barrels free. **FUEL OIL** is unchanged on quotations, but values could no doubt be shaded; market neglected. 905 to 910 gravity £5 10s., 950 £4 per ton, ex tank. **NAPHTHA** is cheaper on the week and now quoted at 2s. 3d. per gallon, with the market still slack. **SOLVENT NAPHTHA** is unchanged and dull at 2s. 8d. for 90 to 160, and heavy solvent naphtha, 90 to 190, at 2s. 7d. per gallon, drums extra. **PARAFFIN WAX** and **SCALE**.—Wax has been in poor demand only, but values are so far maintained at 2½d. to 4½d. per lb., according to melting-point. Scale is steady but quiet at 1½d. per lb. on spot and 1½d. forward for 122° F. to 124° F. **PETROLEUM OILS** remain very steady and in usual demand. American standard white, 1s. 4½d.; water white, 1s. 5d. **PETROLEUM JELLIES**.—Slightly lower figures are now being quoted for the better qualities, and the market is still dull and weak. Snow-white, £72; white, £67; extra pale yellow, £51; amber, £27; red vet, £22; dark stiff green, £21, barrels free, ex wharf London. **SPECIAL OIL** for Diesels and motors remains at 10d. per gallon, barrels free, but there is only a poor demand with the market easy. **WHITE OILS**.—Lower prices are quoted this week, but the market has not livened up at all. Special No. 1, £42 10s.; No. 1, £39; No. 1A half-white £37, drums free; No. 2 half-white £34, barrels free, ex wharf London. **LUBRICATING OILS**.—The spot market is unaltered from last week's report, and cylinder stocks are firmer. No further advance by shippers has been notified.

ANIMAL AND FISH OILS, TALLOW, ETC.—Tallows maintained their recent improved position and are unchanged on the week. Fish oils appear steadier, but are still dull and easy at the figures quoted. **NEAT'S-FOOT OIL** on the spot is scarce and asked for. **BONE GREASE**.—Values are round about last week's prices, but the market has been livelier, with a brisk demand for benzene on spot. Pale water, 33s. 6d.; brown, 30s. 6d.; benzene, 30s. 6d. **ENGLISH LARD OIL** is slack at 62s. to 74s. per cwt., with American material at 65s. to 76s. in barrels. **NEAT'S-FOOT OIL**.—English is still scarce on the spot and firm at 5s. 3d. per gallon. South American, under 1 per cent., steady at 5s. 7½d. ex wharf London. **PALE HORSE OIL** is unchanged and slack at 35s. per cwt. delivered. **FISH OILS**.—At slightly easier prices for some of these products the market seems a little steadier. Values are, however, considered weak at the following figures: Filtered pale whales, 35s. to 39s.; filtered brown, 29s.; thickened, 38s.; brown whale cake, 18s.; brown stearine, 16s.; refined sperm oil, 39s.; best refined southern sperm oil, 41s.; seal oil, 24s. to 42s.; water-white seal oil, 45s.; Newfoundland tanked cod oil, 33s. 6d.; English coast cod, 29s.; thickened fish oil, 39s. 6d.; thickened shark oil, 34s.; hardened whale oil, 39s. to 43s.—in barrels ex wharf London; lower prices ex provincial ports. Japanese fish oil, in cases, 22s. c.i.f. for shipment. **TALLOW** during the past week have been unusually steady, and little or no alteration is recorded; business has been fairly good. Australian, fine muttons, 42s. 6d.; fine beef, 43s. to 43s. 6d.; good mixed, 41s. 6d.; and inferior, 35s.



Letters for this section should be written on one side of the paper only. The writer may adopt an assumed name for purposes of publication, but he must in all cases furnish his real name and address to the Editor.

The Profit on Proprietaries

SEVERAL correspondents write agreeing with Mr. Swaby Barnes (*C. & D.*, March 4, p. 79) as to the inadequate profit on Bovril. "Unity" (4/3) contends that window-shows should not be made for a 5 per cent. consideration, and he asks "Why plaster your window with bills inviting the public to purchase an article that does not allow sufficient profit to pay for establishment charges?" "R. P." (3/3) writes in similar strain, and refers also to the offer by C. E. Fulford, Ltd., of 3s. for a window-display. "A window-show," he adds, "ought to be paid for," and he suggests that travellers offering window-shows should be told that these can be had if paid for in cash and without any condition that larger quantities of the article be purchased than are usually carried.

Morality in Business

SIR,—I hope that "Xrayser II." has not read into my letter the idea that I advocate the plan of folding up one's religion and morals with the Sunday clothes. I am a firm believer in moral justice for everybody, whether on Sundays or week-days, and by this I do not mean the psalm-singing, pass-round-the-bag religion, but the true "do unto others as you would be done by" type of morality. One of the chief causes, if not the chief cause of our present state of unrest, dissatisfaction of workers, apathy of electorate, and so on, is that so many men have this dual kind of mind. To the credit of the British nation, it is very exceptional for a man to be anything but honourable and just in his own affairs; but so soon as he is appointed to some prominent position or takes up any form of politics his morality seems to go by the board. It is no wonder, then, that the rank and file of the public have no faith left in the utterances and promises of public men to-day, and in our own little world. I have no doubt that "Xrayser II." whose knowledge and experience of pharmaceutical matters are probably much greater than mine, can provide his own examples of my meaning.

Yours faithfully,
MORALIST (7/3).

Testing Galenicals and Chemicals

SIR,—I am interested in "Xrayser II.'s" remarks on packed goods, especially when he says that all drugs sold should be examined by the pharmacist or his qualified assistant. By "examined" I take it he means such examination as can be conducted by eye, smell, or taste; if so, I agree with him; but if he means pharmaceutically tested, then I am afraid that under modern retail conditions it cannot be done. When I look through last week's drug invoices alone with their many different items, and then at the B.P. tests for them, I should have quite enough work on hand for the next week without opening the shop at all, if I were to test them all. Proctor's "Manual of Pharmaceutical Testing" gives the simplest procedure to adopt in each case, but there would be one man's work to cope with it all then. I doubt very much if "Xrayser II." himself, for example, when he receives a package of borax, about which there has been a good deal of complaint lately, applies the arsenic test to find if it contains more than five parts per million of arsenic. For a large concern it is right that such analyses should be made, and it is an economic proceeding, too, as one test will apply to a purchase of tons. At one time I was in the wholesale, and it was part of my work to draw samples from bulk at the manufacturers of certain drugs and chemicals, which were then analysed before delivery was taken, and this frequently saved the firm from incurring a

heavy loss. I cannot imagine, however, a retail pharmacist doing more than inspect his drugs. How would he get on with tr. opii., ext. ipecac. liq., which require careful standardisation, and especially cinchona bark, and when he got to tr. digitalis I think his good resolutions would come to a sudden end.—Yours truly,

INSPECTOR (19/9).

Miscellaneous Inquiries

Mellis (4/2).—GLYCERIN CREAM.—The following is a suitable formula for the chapped-hands cream of the kind you require:

Almond oil	...	...	...	3viij.
Spermaceti	...	...	...	3iij.
White wax	...	...	...	3j.
Borax	...	...	...	3ss.
Glycerin	...	...	...	3iij.
Orange-flower water	...	...	...	3j.
Oil of neroli	...	...	...	mv.
Otto of rose	...	...	...	mv.

Melt the first three ingredients together, and transfer to a hot mortar. Dissolve the borax in the glycerin and orange-flower water, and add a little at a time to the mortar contents, stirring well to produce a nice, uniform cream. Finally add the perfume.

Wind (19/2).—DIGESTIVE PILLS.—The following is the formula for which you inquire:

Bismuth. oxynit.	...	...	...	5ij.
Sodii bicarb.	...	...	...	5j.
Ext. nuc. vom.	...	...	...	gr. vj.
Gingerin	...	...	...	gr. xv.

Ft. massa. Dose 4 to 8 grains.

R. B. C. (27/2).—The moss sent is *Sphagnum cymbifolium*, mixed with a little *S. papillosum*. These are two of the larger-leaved bog mosses which are used in preference to the smaller and narrower leaved species for making sphagnum sheets. Bog moss is superior to cotton-wool or lint for some surgical uses, because of the property it possesses of spreading out the absorbed liquid instead of producing local patches.

Mitre (1/3).—LIQUID SHAVING-CREAM.—The following yields a good preparation of the kind you require:

Crème d'amandes	...	...	...	3ij.
Ol. amygd. dulc.	...	...	...	3ss.
Glycerini	...	...	...	3j.
Ol. geranii	...	...	...	mx.
Aq. lavand.	...	...	...	3ij.
Aq. dest. ad	...	...	...	0j.

Rub the crème d'amandes in a mortar until pliant, then add the almond oil, little by little, with constant rubbing. Next add the geranium oil, the glycerin, and sufficient water, and, lastly, the lavender water.

G. G. (4/3).—"Opening a Pharmacy," which we published some years ago, is out of print, and is not likely to be reissued for some time yet.

Retrospect of Fifty Years Ago

Reprinted from "The Chemist and Druggist," March 15, 1872

Chemists and Druggists and Jury Service

With reference to this subject it will have been noticed that the Attorney-General has distinctly promised to introduce a Bill to revise in certain points the conditions of jury service. We have submitted to Sir John Coleridge the claims which we think chemists and druggists as a body have for exemption, and we have no doubt these claims will be carefully weighed by the learned gentlemen. If no such clause should appear in the Bill when it is brought forward, it will then rest with those most interested to address themselves to the House of Commons collectively, and to their representatives individually, in order to induce a consideration of the subject in Committee. We hope that, at this opportunity, a respectful submission of our case will receive an equally respectful attention from our legislators.

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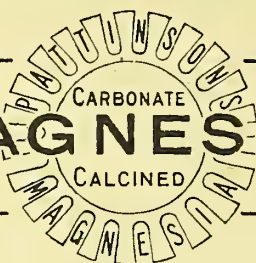
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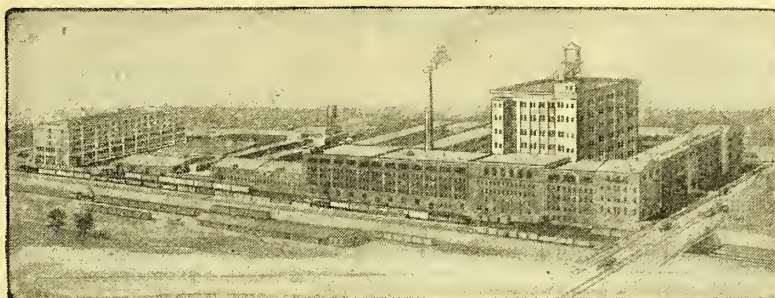
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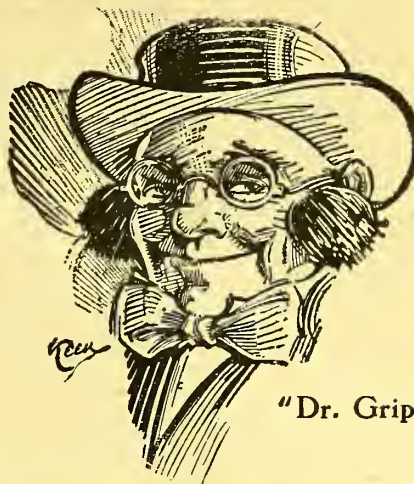
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(British Colloids Limited)

**22 CHENIES STREET,
TOTTENHAM COURT ROAD, W.C. 1.**

"RED BAND"

Bismuthated Magnesia

BOTTLES

1/3

COST
8/- doz.

Bonus



PROFIT
100%
ON COST

NEW SIZES.

Our splendid formula in the heavier
magnesia, plain or peppermint sweetened.

Packed in 1-doz. or ½-doz. Show Boxes
(Peppermint sweetened sent unless otherwise specified).

All orders for 6 dozen and over,
one size or mixed, will receive a
bonus of 1 bottle with each dozen.

**BUY YOUR BISMUTHATED MAGNESIA
FROM THE SPECIALISTS IN THIS LINE**

Carriage paid on 30/-

BOTTLES

2/3

COST
15/- doz.

Bonus



PROFIT
100%
ON COST

The "Red Band" Chemical Co., Richmond Terrace, Edinburgh.

"QUINPHOS"

(Regd.)

THE GREAT TONIC



BEWARE OF A COLD

IT IS AN INSIDIOUS THING AND
SHOULD BE TACKLED AT ONCE
NEGLECTED COLDS LEAD TO
DANGEROUS DISEASES.

THEY LOWER THE VITALITY
AND INVITE ILLNESS.

INSURE AGAINST ALL DANGER
WITH

"QUINPHOS"
THE GREAT TONIC.

BONUS ORDER No. 2

3 doz. 1/3 "QUINPHOS"		£	s.	d.	£	s.	d.	Sells for
	@ 11/6	1	14	6	2	5	0	
1 " 3/-	@ 27/6	1	7	6	1	16	0	
3/4 " 1/3	Bonus					11	3	
		£3	2	0	£4	12	3	
5% 1 month			3	2				
		£2	18	10				

Outlay £2.18.10 Profit £1.13.5

Advertising Matter for Window Display included.

Sole Makers—

THOMPSON & CAPPER, Ltd.
Manesty Buildings, College Lane, LIVERPOOL.

Sphagnol SELLS

Sphagnol Soaps and Ointment have won their present high position, first, by advertising strongly in all Medical and Nursing papers; secondly, by their undeniable merit.

Both will continue to build trade for YOU. How are your stocks?

Sphagnol

SOAPS and OINTMENT

are the recognised remedy for all skin complaints.
(P.A.T.A.)

Handsome Showcard (full colours)
sent free with first order.

Peat Products (Sphagnol) Ltd.

DEPT. B3.

18/19 Queenhithe, LONDON, E.C. 4.



THE GREAT NERVE FOOD AND FLESH BUILDER.

A LARGE advertising campaign is now in progress in connection with this popular tonic and flesh-building treatment, and the demand is rapidly increasing.

IRVONA is obtainable from all the usual wholesale houses, or direct, at the following prices—3/- size, 27/- per dozen.

15/- " 135- " "

Another line rapidly growing in popularity—

"IRVOLAX" (the safe aperient).

1/3 size 12/- per doz.

3/- " (four times the quantity) 27/- "

Terms Nett 30 days, subject to usual trade references.
Under 27/- cash with order.

IRVONA is on the P.A.T.A. list and gives you a clear profit of 25% on turnover.

Pamphlets for distribution and Showcards will be sent on application.

P. J. WILLIAMS

Chiswell Chambers, 27 Finsbury Street,
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CORRUGATED PAPER, BOXES AND PACKINGS FOR ALL PURPOSES*Waterproof Papers, Gummed Paper Tapes, etc. etc.*

ENQUIRIES SOLICITED.

Telegrams:
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West Mill, Oxford Street, Ashton-under-Lyne.Telephone:
576 Ashton-under-Lyne.**Alcohol for Industrial Purposes**
Duty-Free Spirit.*The Industrial Spirit Supply Company, Limited.*

Agents: HONEYWILL BROS., 79 MARK LANE, LONDON, E.C.3.

BATTLE'S VERMIN KILLERIn packets at 5d., 9d. & 1/3 each (P.A.T.A.)
of all Patent Medicine Houses, at 3/-, 5/6 & 9/- doz.

Sells readily on merit; the demand is constantly stimulated by advertisements in the public press and it fulfils all the claims advanced. All that is needed is your customer's signature, a little personal service that is appreciated. Good profits make the handling of this line well worth your attention.

BATTLE, SON & MALTBY, Manufacturing Chemists, Lincoln.**PURE ORANGE WINE**
A. MILLAR & CO., LTD., DUBLIN

(VINUM AURANTII B.P.)

Prepared in strict accordance with the Formula of the British Pharmacopoeia.
Samples from Head Office, Thomas Street, DUBLIN, or London Office, 43 Great Tower Street, LONDON, E.C.3.

(Wholesale only.)

FREDK. FINK & CO.,

10 & 11 MINCING LANE, LONDON, E.C. 3.

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Tragacanth as imported or finely powdered.**PRECIPITATED CHALK**

Lightest and Whitest, also Purest Dense

Aug. Levermore & Co., Ltd. 8-10 Gt. St. Helens,
LONDON, E.C. 3.

Telegrams: "Levermore London."

Telephone: Central 4613.

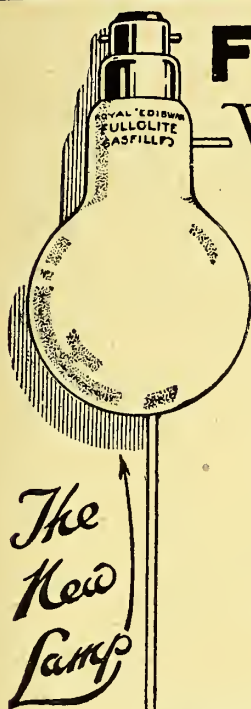
PUFFS of ALL KINDS in DOWN and WOOL.
SOLID FACE POWDERS
COMPLETE WITH PUFFS.Inquiries invited by makers,
F. SCHUTZE & CO., Ltd.
BLACK BULL WORKS,
Caledonian Market, London, N. 7.**CHICAGO HAIR DYE***Do you know where to obtain?*

MADE IN FIVE SHADES.

Sole
Proprietors: **SINGLE, DALBY & CO.,**
42 Oldham Rd., Manchester.
Telephone . . . 5747 Central.**The EVAN WILLIAMS**Always in Great Demand.
Price List on Application.**The Evan-Williams Co., Ltd., 18, Ogle Street, W.1.**Original Henna **SHAMPOO****PRELIMINARY EXAMINATION for PHARMACEUTICAL STUDENTS**

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SHOULD STOCK****ABDINE****THE GOLD MEDAL FRUIT DRINK.**Quick Seller. Big Profits. Over 40 years' Reputation.
"Abdine" is the most popular Health Drink, superior to all Mineral Waters. The Original and only genuine Fruit Drink.
Reduced Price List can be had on application.
DUNCAN McGLASHAN, LTD., ABDINE WORKS, WESTFIELD ROAD, EDINBURGH**THE TOOTH PASTE FOR SMOKERS**1/- P.A.T.A., 7/6 per dozen. 1/2 dozen
Bonus on 3 dozen. The Powder—
6d. P.A.T.A., 3/- per dozen. 3 dozen
of each allows us to send the "Peak"
show that makes a profitable "stir"
anywhere.**THOS. CHRISTY & CO.**
4-12 OLD SWAN LANE, E.C. 4. 3



FULLOLITE

Without Glare

Ask at once for full particulars of the new Royal "Ediswan" Fullolite Lamp. It is the latest and greatest of all electric lamp developments. It entirely abolishes the glare and brilliance of ordinary lighting, and in its place gives a soft diffused light full of beauty.

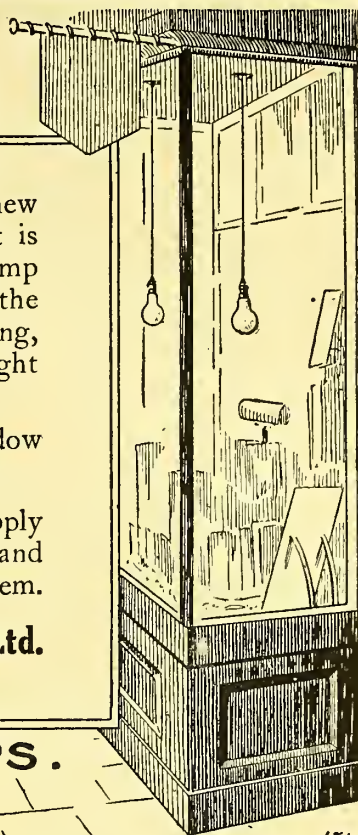
Its value for such purposes as window lighting is tremendous.

If your electrical contractor cannot supply you, send us a postcard giving his name and address, and we will see that you obtain them.

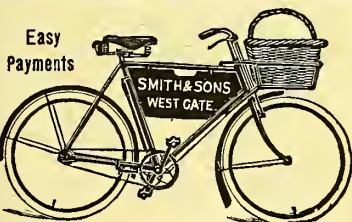
The EDISON SWAN ELECTRIC Co. Ltd.
Ponders End, Middlesex.

ROYAL "EDISWAN" LAMPS.

Fully licensed under Patents
Nos. 23499/09, 10918/13 and others.



The finest investment you can have, for the advertisement is worth the cost of the bicycle.



DUNLOP
TYRES

TWO STRONG
BRAKES

WHEELS
26 x 1 1/2

WRITE FOR LIST

MOHAWK CYCLE CO., LTD.,
857 ALEXANDRA ROAD, HORNSEY, N.

GUY'S HOSPITAL PARABOLIC REFLECTOR LAMP

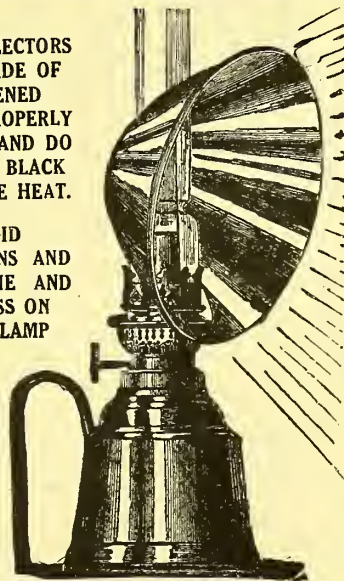
Used in Guy's Hospital for the past 20 years.

OUR REFLECTORS
ARE MADE OF
HARDENED
METAL PROPERLY
PLATED, AND DO
NOT GO BLACK
WITH THE HEAT.

AVOID
IMITATIONS AND
SEE NAME AND
ADDRESS ON
EVERY LAMP

All
Nickel
Plated.

SENT
POST
PAID TO
ANY
ADDRESS
IN GT.
BRITAIN.



9/6

If abroad
postage
extra.

To Chemists, Practitioners and others in the country and abroad where gas or electric light are not available THIS LAMP is of thoroughly practical use.

Send for particulars—

J. BRUCE, 232 Borough High St.,
London, S.E.1,
And LANT STREET

Chemist and Druggist SUPPLEMENT

is an infallible help when you want
to buy or sell a business, secure an
agency, an assistant or a situation, or

SELL SURPLUS STOCKS.

The Tariff is printed on the front cover of the Coloured Supplement.

Address all inquiries to—

The Publisher: **THE CHEMIST AND DRUGGIST,**
42 Cannon Street, LONDON, E.C. 4.

Gelatines

Fine Leaf Gelatine, Pure Calf.

"Albion" Brand (In 1-lb. Packets,
112 × 1-lb. to Case)

Made in England.

FINE CRYSTAL GELATINES.
PURE SKIN GELATINES.
POWDERED GELATINES.

Samples on Application.

OURY, MILLAR & CO. 9 MINCING LANE,
LONDON, E.C. 3.

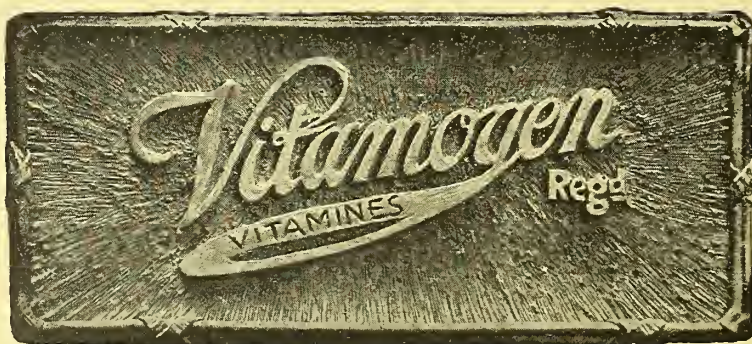
Telegrams: "Olmenth London."

Telephone: Avenue 4978.

THERE IS A STEADILY GROWING DEMAND FOR

**Fry's Malted
Cocoa**

CONSTANTLY RECOMMENDED BY THE MEDICAL PROFESSION & PRESS



VITAMOGEN contains the essential Vitamines in an active and concentrated form. VITAMOGEN is in itself a food of the highest potency, rationally concentrated according to approved scientific methods. It is rich in organic, i.e. assimilable Phosphorus, and the proportion of nutritive constituents is well balanced to meet the physiological needs of the organism. VITAMOGEN stands alone as a means of supplying the Vitamines—an entirely new food element. VITAMOGEN is packed in two sizes, 2/9 and 5/9, obtainable from all the principal wholesale houses. Literature on VITAMINES will be sent on application to —Dept. C.

24/26 HOLBORN,
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Vitamogen
LTD.



Sells readily ALL the time

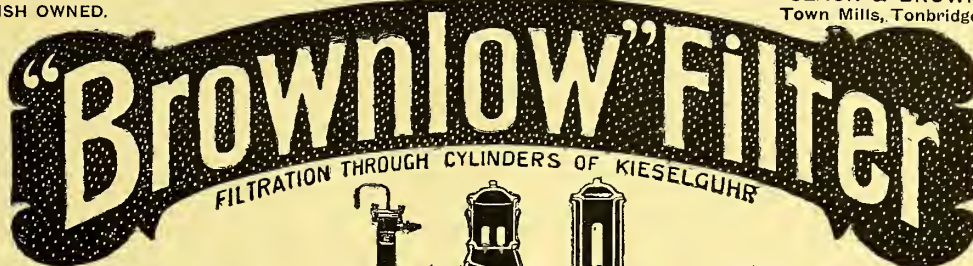
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**IMPORTANT NOTE
TO CHEMISTS
WITHOUT LICENCES**

It has been established by law that Registered Chemists may sell "Wincarnis with Quinine" without a licence.

BRITISH OWNED.

SLACK & BROWNLOW,
Town Mills, Tonbridge, Kent.



**Crystal Pure Water.
Free from Disease Germs.**

AGENTS WANTED EVERYWHERE.
Catalogue on Application.

DR. HALE'S
VIN-SANGUIS
WINE FOR THE BLOOD

Fountain of Health

If you have a Wine License we will pay the fee.

If not, get one, we will pay license.

Send for any



You agree to display "Vin Sanguis" always.
You give us an agreed initial order.
You always keep stock

for further particulars

PROPRIETORS OF
DR. HALE'S VIN-SANGUIS

Transcontinental Agencies Ltd.
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VITMAR

*The new vitalising food
proved to contain the
three principal vitamines*

YOUR WHOLESALERS CAN SUPPLY YOU.

Manufacturers: **CALLARD & CO.,** 74 Regent St., LONDON, W. 1.
Food Specialists,

Vinum Xericum

BUTTS.	HOGSHEADS.	QR. CASKS.
108 galls.	54 galls.	27 galls.

Grade A.	STRENGTH 16.5°-17° Abs. Alc.
Grade B.	18°-19° Abs. Alc.

James V. Oldham

19 St. Dunstan's Hill, London, E.C.3.
Telephone: Avenue 3013.

Francis F. Fox & Co. : Bristol

LINSEED OIL. TURPENTINE.
FINE OLIVE OILS.
LIQUID PARAFFIN. CASTOR OIL.
CHEMICALS. DRYSALTERY.
PETROLEUM JELLY.
CRUSHED LINSEED.

PRICES ON APPLICATION.

TELEGRAMS—
"FOX BRISTOL."

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Opportunities for Retailers

We often take back used Cash Registers when customers are installing larger or more up-to-date machines. These National Cash Registers,

Thoroughly Overhauled and Rebuilt

are sold under the Company's full guarantee at reduced prices.

Write for details of "Nationals" available, Dept. R.9, The National Cash Register Co., Ltd., 225 Tottenham Court Rd., London, W.1

MOTOR OILS

ALL GRADES

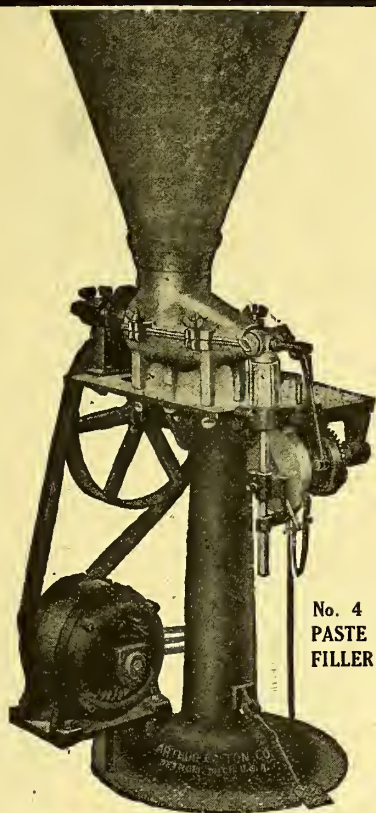
Enquiries solicited for all Grades of Oil.



Langley-Smith & Co.
14/20 St. Mary Axe, London, E.C. 3

Telegrams: "Tallowdom London."
Telephone: Avenue 3820

(4)

No. 4
PASTE
FILLERSole British
Agents:

COLTON

PASTE MIXERS TUBE FILLERS CLIP FASTENERS NICKELOID CLIPS

The most practical and efficient machines for tooth-pastes, etc., at present on the market, and **THE STANDARD EQUIPMENT OF THE UP-TO-DATE FACTORY.**

A wide range of machines are available for either small or large output. We shall be pleased to submit full specifications and prices on application.

JOHN J. GRIFFIN & SONS, Ltd.
KEMBLE ST., KINGSWAY, LONDON, W.C.2



Laboratory Fittings and Equipment.

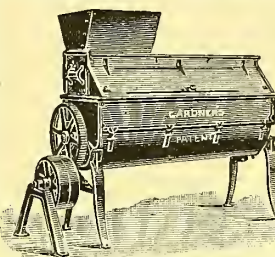
SPECIALITIES: Benches, Fume Cupboards, Stills, Drying Ovens, Gas, Water and Steam Fittings, Electrically Heated Apparatus.

Quotations submitted for the complete equipment and installation of apparatus and plant for Educational Research, and Commercial Laboratories. *Lists Free.*

Stills, as illustrated, for gas and steam heating, made in sizes from 1 to 12 galls. per hour. Prices on application.

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ALEMBIC WORKS,
WEDMORE STREET, HOLLOWAY,
LONDON, N. 19.

GARDNER'S PATENT "RAPID" SIFTERS & MIXERS



OVER 6,000

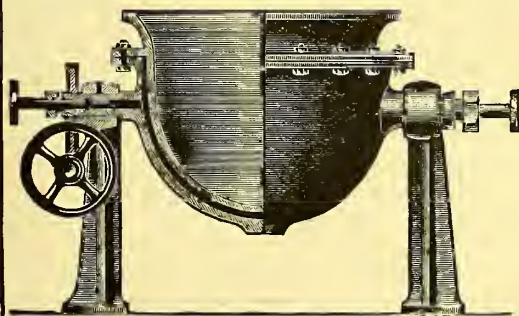
working in almost every Trade where POWDERS are Sifted and Mixed and Lumps Reduced, all being done at one operation and without loss by dust.

FOR HAND OR POWER.

CATALOGUES FREE.

WM. GARDNER & SONS (GLOUCESTER) Ltd.
Engineers, GLOUCESTER.

ENAMELLED IRON APPARATUS



Suitable for all Temperatures and Pressures

DANTO ROGEAT & CIE,
33-39 Chemin des Culattes, LYONS, France.

Suppliers before the War to the largest European Manufacturers of Chemical Products.

Write for Price List to Sole Representative:

H. SLOOG, 45 Great Marlborough Street,
LONDON, W. 1.

Telep.: Regent 2460.

The Sensation of the Chemists' Trade for 1922.

HERE is a new, original and exclusive line,
bringing fresh business and liberal profits
—the Polar Cub Vibrator.

Electric Vibratory Massage is recognised by the
Medical Profession as one of the most powerful
aids to health. It dislodges secretions of uric
acid, drives poisons out of the system, and
gives strength to the muscles and internal
organs. It improves the skin, tones up the
circulation and complexion.

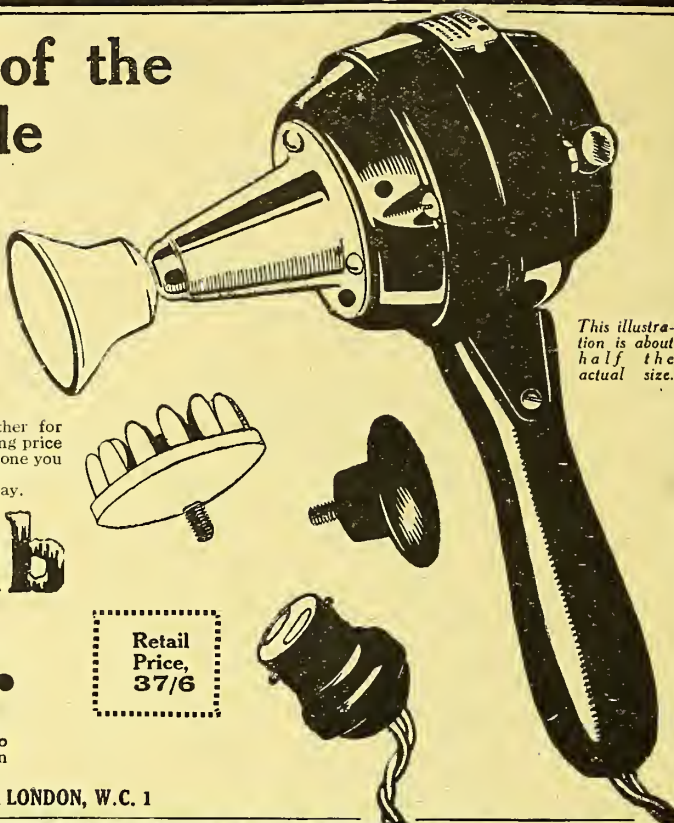
You can sell and recommend the Polar Cub either for
Health or for Beauty Culture. The Retailers' selling price
is 37/6, affording you a handsome profit on every one you
sell.

Write for full particulars and trade terms to-day.

Polar Cub Electric Vibrator

A supply of attractive advertising matter to
help you sell Polar Cub Vibrators is sent on
receipt of every order.

The A. C. Gilbert Company, 125 High Holborn, LONDON, W.C. 1



This illustration
is about
half the
actual size.

Retail
Price,
37/6

OILED SURGICAL COTTONS OILED SURGICAL SILKS

EDWARD MACBEAN & Co., Ltd.

Manufacturers of Oil-proofed and Rubber-proofed Cloths
of every description.

London Office—6 & 8 Lime Street Square, E.C. 3.

123-125 Howard Street • GLASGOW.

Telegrams:

"Diamond, Glasgow."

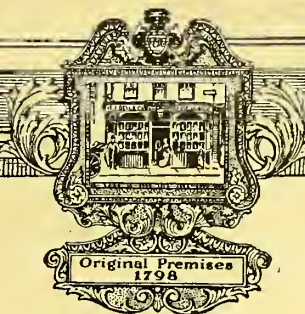
"Stormproof, Ltd, London."

Codes: Lieber's 5-Letter, A B C (5th Edition), and Marconi.

Telephones:

8387 Central.

1935 Central.



The "MARYLEBONE"

STERILIZED

ACCOUCHEMENT OUTFITS.

These Outfits contain sufficient dressings, etc., for the accouchement.

THE "MARYLEBONE" OUTFITS are always "GOOD STOCK" as the contents cannot deteriorate or become soiled, and sterility is maintained.

Retail Prices :

No. 1 Outfit

31/6

No. 2 Outfit

63/-

Trade Terms and descriptive literature on application.

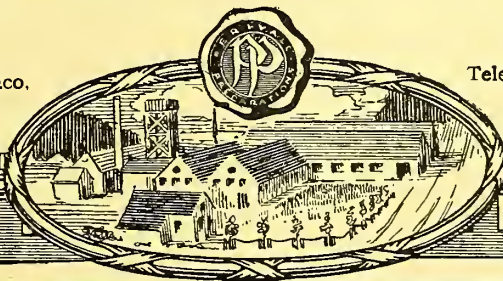
IT WILL PAY the Pharmacist to hold stocks of these outfits. A large demand is being created by means of an intensive Press campaign.

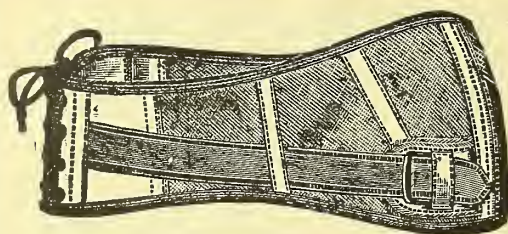
JOHN BELL & CROYDEN, Ltd.

50 Wigmore Street, LONDON, W. 1.

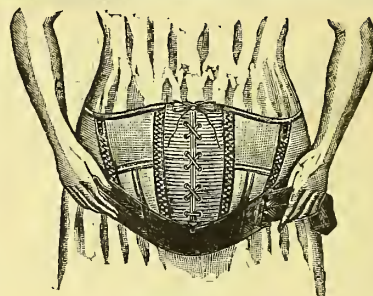
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Wesdo, London."

Telephone: Mayfair 5015
(4 lines.)





THE
**SURGICAL
HOSIERY**
Co. - - Ltd.
Russell Street,
NOTTINGHAM.

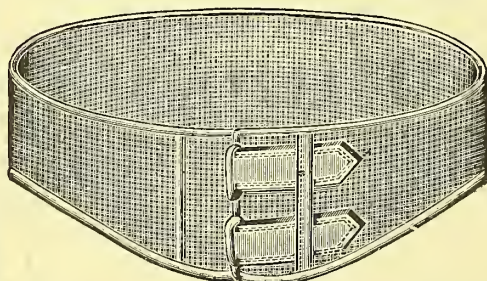


MINERVA.

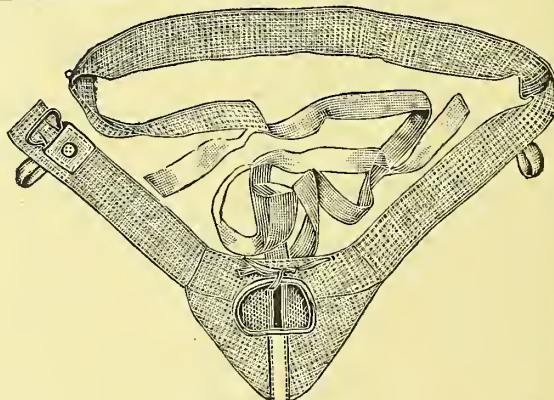
SURCO SPECIALITIES

**Ladies' Belts, Gent's Belts,
Suspenders, Braces, Trusses, etc.**

Specials to Measure promptly dispatched.

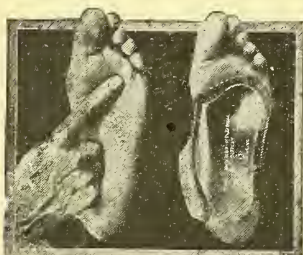


SURCO for Summer Wear.



AERTEX for Summer Wear.

[2]



Write to-day for Illustrated Catalogue.

THE SCHOLL MFG. CO., LTD.,
1-4 GILTSPUR STREET, E.C.1.

PAIN JUST THERE

can be instantly relieved and permanently corrected by the use of Dr. Scholl's Anterior Metatarsal Arch Supports, which are specially constructed to relieve and correct ailments at the ball of the foot.

Retail Price 12/6 per pair.



is being widely advertised in all the leading newspapers and periodicals. Are you in a position to handle the increased demand created by this National Advertising Campaign?

GETS-IT

(The World-Famous Corn Remover.)

"Gets-It" is a liquid which dries at once when applied to corns or calluses with the glass applicator that accompanies each bottle. Stops pain at once and soon loosens the corn or callus so that it can be lifted right off.

Used by Many Millions throughout the balance of the world, and certain of enthusiastic reception here.

Now Distributed in Great Britain through

THOMAS CHRISTY & CO.

4, 10 & 12 Old Swan Lane, Upper Thames St., London, E.C.4.

Manufactured by E. LAWRENCE & CO., Chicago, U.S.A.

J. H. HAYWOOD, LTD.

**CASTLE GATE,
NOTTINGHAM.**

**INVENTORS
OF
SEAMLESS
ELASTIC
HOSIERY.**

**SURGICAL APPLIANCE
MANUFACTURERS.**



Specialities :

Abdominal Belts,
Trusses,
Suspensory Bandages,
Braces,
Elastic Web Bandages,
and Druggists' Sundries.

WRITE FOR PRICE LIST.

ESTABLISHED 1833.

TELEGRAMS: "APPLIANCE NOTTINGHAM."

Telegrams :
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Cables :
Code, A B C, 5th Edition.

TRADE

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Telephone :
CLERKENWELL 1347
" 1348
" 1349
Pte. Exchange.



YOUR INQUIRIES SOLICITED FOR :

SURGICAL DRESSING	{ Bandages, Lints, Gauzes, Cotton-wools, Gauze Tissue, Pads, Swabs, Plasters, &c.
CHEMISTS' SUNDRIES	{ Vacuum Flasks, Feeding Bottles, Belts, Bath Gloves, Bathing Caps, Powder Puffs, Sponge Bags, Holdalls, &c.
TOILET REQUISITES	{ Combs, Brushes, and Mirrors of every description, Tooth and Face Powders, Tooth Paste, Manicure Sets, Scissors, Forceps, &c.
SICKROOM UTENSILS	{ Thermometers, Bed-pans, Urinals, Feeding Cups, Glass Measures, Enemas, Syringes, Douches, &c.
RUBBER ARTICLES	{ Hot Water Bottles, Sheetings, Beds, Air Cushions, Ice Bags, Sponges, Teats, Valves, Soothers, Tubing, Whirling Sprays, &c.

IMMEDIATE DELIVERY.

ARTHUR BERTON LTD.

REGISTERED OFFICE, SHOWROOMS AND WAREHOUSE :

15 & 17 Worship Street, LONDON, E.C. 2.

84 MILLER STREET, GLASGOW, and at MANCHESTER.

CLINICAL THERMOMETERS.**BEST ENGLISH MAKE GUARANTEED.**

Verified & Stamped at National Physical Laboratory, Kew.

The "EMPIRE" Brand.
(Ordinary Pattern.)

	...	...	per doz.	s. d.
Hospital pattern	...	...	19 0	
" lens front	...	...	21 0	
60-seconds, plain	...	...	22 0	
" lens front	...	...	24 0	
30-seconds, plain	...	...	24 0	
" lens front	...	...	27 0	

The "DUO-IN-UNO."
(Quick Shake-down.)

	...	...	per doz.	s. d.
Hospital pattern	...	...	28 0	
" lens front	...	...	30 0	
60-seconds, plain	...	...	30 0	
" lens front	...	...	33 0	
30-seconds, plain	...	...	33 0	
" lens front	...	...	36 0	

EACH ONE IN METAL CASE.

SPECIAL OFFERS.**(No. 1) "EMPIRE"**

In return for cash **20/-** we will
send you post free the following assortment
of "Empire" Brand.

	...	...	List price per doz.	s. d.
7 Hospital pattern	...	...	19/-	11 1
3 " lens front	...	...	21/-	5 3
1 60-seconds, plain	...	...	22/-	1 10
1 " lens front	...	...	24/-	2 0
1 30-seconds, plain	...	...	24/-	2 0
1 " lens front	...	...	27/-	2 3

14 Thermometers **20/-** List price **£1 4 5**
for

(No. 2) "DUO-IN-UNO"

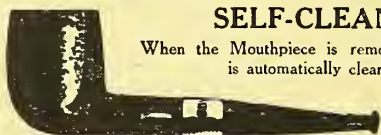
In return for cash **20/-** we will
send you post free the following assortment
of "Duo-in-Uno" Brand.

	...	...	List price per doz.	s. d.
3 Hospital pattern	...	...	28/-	7 0
2 " lens front	...	...	30/-	5 0
1 60-seconds, plain	...	...	30/-	2 6
1 " lens front	...	...	33/-	2 9
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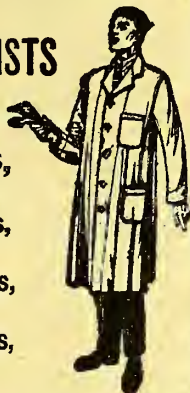
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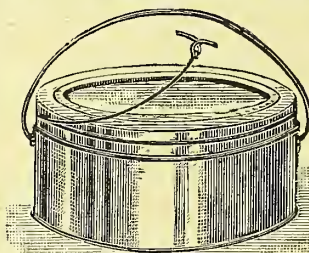
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THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST.
LONDON E.C. 4

MARCH 11, 1922

This Supplement is inserted in every copy of The Chemist & Druggist.

THE CHEMIST AND DRUGGIST SUPPLEMENT REVISED ADVERTISEMENT TARIFF.

Businesses Wanted and for Disposal, Premises to Let, Goods and Shopfittings for Sale, and Agencies: 6/- for 50 words; every additional 10 words or less, 6d.

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SITUATIONS WANTED: 2/- for 18 words; every additional 10 words or less, 6d.

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In each case replies may be addressed to a registered number or nom-de-plume, c/o this Office, at a charge of 1/- extra for each advertisement.

PAYMENT.

All Advertisements are prepaid, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

THE CHEMIST AND DRUGGIST, 42 Cannon Street, LONDON, E.C. 4.

Telephone: Central 3617 (3 lines).

Telegrams: "Chemicus, Cannon, London" (2 words).

EARLIER CLOSING FOR PRESS. Will advertisers please note that until further notice it will be necessary that Advertisements intended for the Supplement must reach us not later than the **FIRST POST THURSDAY MORNING.**

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

Telephone No.: City 2283.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1.—LONDON, W. (Death Vacancy).—High-class Dispensing and Retail Business; gross receipts, present rate, between £6,000 and £7,000 yearly; gross profit 45%; modern, well-fitted shop, fully stocked; comfortable residence; 21 years' lease; price, to include £1,500 book debts, £5,000, or near offer would be entertained; this is a splendid opportunity for an energetic man with West-End experience.

2.—CITY (Borders of).—Ready-money Business; returns, under management, £50 weekly, with scope for development; net profit 25%; rent moderate; held on lease; price about £1,800, or near offer would be considered.

3.—OXFORD STREET (within easy distance of).—Cash Retail Business; corner position, in shopping thoroughfare; recently established; opening to do about £40 weekly; to effect a speedy transfer vendor is willing to consider a reasonable offer.

4.—STRAND.—Well-established Business, surrounded by first-class hotels; gross turnover upwards of £5,000, at full prices; well-fitted shop, fully stocked; good opening for two energetic men with capital at command.

5.—SOUTH INDIA.—Well-appointed Pharmacy, trading chiefly with English residents; returns last year Rs. 23,386; the premises comprise magnificent building of two stories, furnished throughout; all further information will be furnished on application.

6.—CHELSEA.—Neglected Drug Store; established many years; opening for qualified man; premises may be purchased; price for stock and fixtures £250.

7.—WHOLESALE BUSINESS, established upwards of a century; a number of Proprietaries are included, which are stocked by most Chemists in the kingdom; returns between £4,000 and £5,000; terms, stock and plant at valuation, and sum for goodwill to be agreed equitably.

8.—LIVERPOOL.—General Retail and Dispensing Business, established 30 years; returns average £1,050, and net profit over 25%; single-fronted shop; rent £50; lease can be had; price £600.

9.—LEEDS.—Ready-money Drug Store; returns about £100 per month; scope for development under qualified management; well-fitted shop, fully stocked; rent £40; held on lease.

10.—SOUTH-WEST COAST.—Established Business; excellent position; sea view; returns between £2,000 and £2,500 yearly; net profit 25%; well-appointed shop, fully stocked; price £1,800; the freehold may also be acquired.

11.—MIDLANDS.—Cash Retail Business; returns average £18 weekly; net profit one-third; look-up shop; inclusive rent 8s. 6d. weekly; price about £600.

12.—MIDLANDS.—Ready-money Business, situate in town with population of 100,000; returns £500; scope for large development under energetic management; rent £30; price to be agreed.

13.—SOUTH OF ENGLAND (Coast Town).—Cash Retail Business, in prominent position in main road of health resort; intending purchasers with £2,700 at command will receive further particulars on application; this sum includes the property.

14.—HANTS (COAST).—Cash Retail Business, including Postal trade; gross receipts about £12,000 per annum, at full prices; further particulars on application.

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Messrs. O. & Co. desire to emphasize the necessity of a periodical Statement of Account by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes the cause of confusion and loss.

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3.—Proprietary Article for Sale; business has good connection among Chemists. Full particulars on application.

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We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

BUSINESSES WANTED.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

KENT or London Suburbs.—Genuine Business or Drug Store; takings £1,000-£1,500; neglected Business not objected to if in good position and locality; housing accommodation and lease essential; capital waiting, £500; replies treated in strict confidence; references exchanged. "Swastika" (161/9), Office of this Paper.

A SOUND Chemist's Business wanted in London district, with scope for improvements, or Partnership with view to ultimate succession, or undeveloped Business; no agents. State particulars and price, in confidence, to 159/33, Office of this Paper.

ADVERTISER, sold own business, wants Partnership or Managership with view to succeed, or buy outright; £400 capital, remainder at 5 per cent.; security proved; town in Surrey, Hants, or G.W. line preferred; house and education facilities essential; would like to spend a Sunday and exchange social references; no hurry. Particulars to 158/5, Office of this Paper.

CHEMIST'S Business required in London or provinces; turnover between £2,000 and £3,000 per annum. Apply 162/1, Office of this Paper.

DISPENSING Chemist's Business required; advertiser will pay good price for going business in London or suburbs with fairly long lease of shop. Write to Box A205, Smiths, 3 Lincoln's Inn Fields, W.C. 2.

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WANTED to purchase for cash, medium-class Business, with takings from £3,000 to £4,000 per annum, preferably in Holloway, Stoke Newington, Tottenham, Harringay, Wood Green, or vicinities; all repairs treated in strictest confidence. Apply "Kadeema" ("L." 3/88), Office of this Paper.

WANTED (at once), genuine Business in London or suburbs; living accommodation essential; cash available up to £2,000. Write, in confidence, to Lyall, 54 New Oxford Street, W.C. 1.

WANTED, small Drug Store; lock-up shop and parlour only; Midlands or South preferred, but not essential; full particulars, in confidence. Apply G. D. North, 48 Morpeth Street, Hull.

WANTED (immediately), a good-class Business, with a turnover annually of anything between £1,000 and £4,000; it must be capable of extension, and for preference (although not absolutely necessary), situated in the Midlands. 156/24, Office of this Paper.

WANTED, by a Pharmacist, a small Business, preferably in an Agricultural district in Yorkshire or North, but any good-class Business if scope exists; £500 available, or would manage with view to succession. 160/11, Office of this Paper.

WANTED (early), genuine Chemist's Business, doing £1,500 to £2,000; North of Scotland preferred, but not essential; best terms for cash. Apply 162/34, Office of this Paper.

WANTED, small Drug Store or Chemist's Business, neglected, with scope for increase; considered, London or suburbs, with living accommodation. Please state lowest cash price, 161/15, Office of this Paper.

WANTED, genuine Drug Store; takings not less than £20 weekly; house accommodation; in or near London. Full particulars, in first letter, "Confidential" (161/35), Office of this Paper.

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FOR Sale, Chemical Hall and Premises, St. Clears.—Freehold dwelling-house, shop, and commodious premises, suitable for Chemist's or other business; Chemist's stock-in-trade, groceries, etc., may be purchased at a valuation. Apply Tom John, Auctioneer, St. Clears, or Messrs. Ungood Thomas, King & Thomas, Solicitors, Carmarthen.

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LONDON SUBURB.—Death vacancy; established Business, in a good neighbourhood; commanding shop, close to railway station; handsomely fitted; well-stocked; moderate rent, on lease; takings over £40 weekly, at exceptional profits; scope for increase; 8-roomed house, in splendid condition; price £1,700. Apply, with references, "Pharmacist," 257 Archway Road, N. 6.

LONDON SUBURB.—Genuine, up-to-date Drug Store; double-fronted shop and house; vacant possession; good shopping centre; good-class locality; large stock; takings £38-£40 per week; scope for increase by addition of Photography, etc.; lease; price for cash, £1,200. Details to bona-fide buyers, with references. P.C.B. 9/27, Office of this Paper.

MANCHESTER.—Immediate disposal, owner retiring; excellent opportunity for multiple firm or others to acquire, together or singly, several well-situated Drug Stores; main thoroughfares; good living accommodation; capable of great expansion all branches; premises also owned by vendor (in one instance); can be purchased or rented; further particulars by letter; principals only dealt with. "Chemist," 34 Cawdor Road, Fallowfield, Manchester.

MIDLANDS.—Modern double-fronted shop; genuine Business; practically unopposed; rent £40; Dentist half-day weekly pays half the rent; bath, hot and cold water throughout; about 500 N.H.I. monthly; splendid opening for a good Prescriber; no one with less than £1,600 need apply. 161/7, Office of this Paper.

SOUTHPORT.—Well-established Business for immediate disposal; well fitted, completely stocked; Dispensing, Photographic, and Family Retail; rent, etc., almost nominal; returns average £1,200; net profit nearly one-third; lock-up shop; £600 or valuation and goodwill. ("L." 3/84), Office of this Paper.

WEST MIDLANDS.—Neglected Business, in small market town, now returning £700; well fitted and stocked shop; large house, yard, and garden; Light Retail; no N.H.I.; price £600. ("L." 3/89), Office of this Paper.

YORKSHIRE.—Very profitable Cash Retail Business, in centre of large city; best position in one of busiest shopping sheets; frontage 14 feet; established over 80 years; rent and rates combined are £358; new lease begun last year; returns are £3,500-£4,000; the profits are greatly above the average Chemist's profits; easily worked with one Junior Assistant; one week's trial can be arranged before completion of purchase; splendid opportunity of acquiring a sound, genuine Business; price £2,000; further details on application only, if accompanied by bankers' references. Apply 160/25, Office of this Paper.

CHEMIST'S Shop and Business for Sale.—Owing to the death of the Proprietor, offers are invited for the purchase of (1) Chemist's Shop, No. 3 Union Street, Dumfries, and (2) goodwill of the business carried on by the late Mr. E. T. Noltie, Chemist, there. For particulars and conditions of sale apply to John Henderson & Sons, Solicitors, Dumfries.

MANUFACTURING Business, completely equipped for manufacture of Compressed Tablets and Packed Specialities, for Sale at the low price of £200 down and balance by arrangement; an excellent opportunity for a young man of experience and with ideas to obtain a business capable of quick development; rent only 10s. weekly. "Tabs" (163/4), Office of this Paper.

MANUFACTURING District (Yorkshire).—Well-fitted cash Retail; modern shop, small house attached; established 100 years; present occupier 30 years; cash price £500. Apply 162/20, Office of this Paper.

£200.—NORTHAMPTON.—Two hundred pounds secures first-class Business in main Northampton thoroughfare; returns previous to death said to be £2,000-£3,000; purchaser should have additional capital to completely restock; 21 years' lease; rent £160; living accommodation above shop. Apply Leach, Chemist, Northampton.

£750 CASH, and balance by arrangement, will purchase at valuation a good-class Light Retail and Dispensing Business; returns £1,500, at profitable prices; large, well-fitted lock-up shop at £45 per annum rent; Midlands. Apply 163/400, Office of this Paper.

PREMISES WANTED.

PREMISES wanted, seaside or country town, where good opening for Chemist; good house; fullest particulars first letter; or would purchase Business. 161/20, Office of this Paper.

AGENCIES.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

EXPERIENCED Travellers amongst Chemists; Pure Olive Oil; on commission; direct importers; Ireland, North and South Wales, Midlands, Southern and Northern Counties. Apply 158/3, Office of this Paper.

FRENCH Pharmacist desires exclusive Agency for France for Medicinal Drugs, Chemical, Pharmaceutical, and Industrial Products, English Pharmaceutical Specialities; if necessary to manufacture in France, this can be done; best references. Write ("L." 3/78), Office of this Paper.

M.P.S., 3½ years' Travelling experience in Lancashire, Cheshire, and West Riding of Yorkshire, seeks engagement as Representative for Wholesale Drug house, or would accept a sound Agency; has good connection; sober and reliable. Apply 156/30, Office of this Paper.

WELL-CONNECTED Agent wanted for leading German Perfumery and Toilet Soap Works; first-class references required. Address full particulars to K. D. ("L." 3/87), Office of this Paper.

FOR SALE.

COMPLETE Fittings for disposal, consisting of Wall Fittings, with drawers and cupboards, Wall Fittings, Counter Cases, upright and flat, Window Casing and Fittings, Counters with glass cases underneath and drawers behind; counter and cases mahogany. Particulars from Oatley, Chemist, Brinscall.

FIXTURES, 3 nests mahogany-fronted Drawers (192), Drug Fittings, 2 mahogany-topped Counters, drawers under, 2 Window enclosures, Counter Show-stand, bent-glass Showcase and cases above, 5 Wall Cases; sufficient to fit up a shop; view any time; £60 or nearest; must be cleared. Turner, 88 Market Street, Fenton, Stoke-on-Trent.

OWING to death of proprietor, contents of small Chemist's shop for sale; Shop Rounds, Mortars, Dispensing Scales, etc., also Chemical Balance and Westfield's Balance; list on application. Apply Mrs. Davis, 21 Daws Lane, Mill Hill, N.W. 7.

SACCHARIN Tablets (strength .11 grain refined 550), about 70 lb. at 7s. 6d. per lb., post free; Cooper Laboratory make. ("L." 3/90), Office of this Paper.

THERMOMETERS, ½-min. Clinicals, tested; 3 dozen 16s. per dozen. Also the following Instruments, only slightly used: Veedee Vibrator, 27s. 6d.; Hæmocytometer, 42s.; Hæmoglobino-meter, 30s.; Morton's Ophthalmoscope, 60s.; Tyco's Sphygmometer, 70s.; can be had on approval. Apply 160/3, Office of this Paper.

56 LB. Copper Sulphate, to clear at 15s. Chemical Products, 41 Newcomen Street, S.E. 1.

TO LET.

SHOP and Basement in the heart of the City, London; 19 years' lease, at £130 per annum; carried on as Opticians'; would dispose lease at a price, or would consider running place as Chemist-Optician. P.C.B. 8/34, Office of this Paper.

PARTNERSHIPS.

M.P.S. (26), single, requires active interest in established business; London or Home Counties preferred; disengaged in two weeks; full details as to cash available, experience, etc., on application. Replies, in strict confidence, to "Punctual" (160/7), Office of this Paper.

VACANCY for a qualified Chemist, to acquire interest in a London Suburban Pharmacy; N.H.I. Dispensing and Photographic experience preferred. Write, giving full particulars, age, experience, capital, etc., "Progress" (163/18), Office of this Paper.

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SITUATIONS OPEN.**RETAIL.**

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/.

BIRMINGHAM.—Locum wanted (at once) for nine weeks; principally Dispensing, also Counter work; probable permanency to right man. Apply, with full usual particulars, enclosing photo and references, Galloway, 98 Colmore Row.

BIRMINGHAM.—Lady Assistant, qualified or unqualified, required for good-class business; one accustomed to private Dispensing and quick Counter trade, with Photographic; must be accurate and trustworthy. Apply 161/18, Office of this Paper.

BOGNOR.—Experienced qualified Assistant wanted about April 1st; must be good Dispenser and Salesman; some knowledge of Photography; hours 9-7.30; 2½ hours alternate Sundays; please state age, experience, salary required, with copies of references. Long & Strickland, Bognor.

BRIGHTON.—Qualified energetic Assistant, not under 33 or over 40 years of age, for brisk Cash business; knowledge of Photography essential. Photo and full particulars to "Omega," 20 Gloucester Place, Brighton.

CHELMSFORD.—Junior Assistant as Dispenser, wanted at once; young gentleman, unqualified, for good-class business; no N.H.I. work or Sunday duty; 3 other Assistants on staff. Please give full particulars, stating age, height, experience, and salary required (outdoors), with references, to E. Bunn, Chemist, The Central Pharmacy, Chelmsford.

DEVON.—An Assistant, with knowledge of Photography, also some Optical experience, and Window-dresser; good Stock-keeper; energetic and willing; short hours; please state age, experience, height, salary required (outdoors); applications not answered in 7 days courteously declined. Phillips, F.S.M.C., Chemist, Axminster.

HUNSTANTON-ON-SEA.—Smart Junior Assistant required for season, April-October, for Dispensing, Stock, and Counter; tall, smart appearance; must have knowledge of Photographic goods and be a reliable Dispenser; splendid opportunity of experience. Apply to R. H. Hands, The Pharmacy, Hunstanton, Norfolk.

ILKLEY.—Unqualified Assistant, accustomed to good-class Dispensing business; Photography, and able to print; vacancy March 20th; state salary required, also photo. Denton, Ilkley.

KENT.—Smart qualified Manager required, about 30, for good-class Family business, run on modern Store lines; must be of good appearance and address, a thoroughly good Salesman, and able to increase turnover. Give full particulars of age, height, experience, and salary required in first letter to 163/150, Office of this Paper.

LONDON.—Wanted, a smart qualified Senior Assistant; must be energetic, good Salesman, and Window-dresser; references must bear strict investigation. Apply, with full particulars as to age, salary, etc., to "Permanency" (161/33), Office of this Paper.

LONDON.—Qualified Assistant with thorough knowledge of Photography. Wm. Shadforth, Ph.C., 63 Grove Road, Bow, E. 3.

LONDON, N.—Wanted, a keen, capable Photographic Assistant, unqualified; salesmanship essential, also practical experience in Developing and Printing; good salary to efficient man. Please give full particulars of age, height, experience, and salary required, to 162/12, Office of this Paper.

LONDON, S.W.—Wanted, first-class unqualified Senior Assistant for good-class Family and Dispensing business; must be of good appearance and address, and a smart Salesman, with up-to-date ideas. Give full particulars of age, height, experience, and salary required in first letter to 163/15, Office of this Paper.

LONDON, W. 1.—Wanted (at once), Junior or Improver (male) in high-class West-End Dispensing business. Please give particulars of experience, etc., and salary required to 162/36, Office of this Paper. Applications not answered by March 17th respectfully declined.

MANCHESTER.—Qualified Lady Assistant required, to commence April 3rd; must be used to quick Cash trade in middle-class business, and be thoroughly experienced in Counter work and Display; reasonable hours and no Sunday duty. Please state recent experience, actual salary required, and when an interview can be arranged, to 162/17, Office of this Paper.

MIDLANDS, Black Country.—Excellent opening for capable qualified Manager; married, and used to working-class business; permanent position, with good prospects; house attached. "Midlands" (160/120), Office of this Paper.

PRESTON.—Unqualified Assistant; must be good Dispenser; permanency.—State age, salary required, and when at liberty. W/R. (160/12), Office of this Paper.

SOUTH KENSINGTON.—For March 27th, Assistant (outdoors), 30-36; active, gentlemanly; used to high-class Dispensing and busy Retail; usual hours, and alternate Sunday duty, 10-1 and 6-8. Write full details of experience and salary required, Newman Schollar, M.P.S., 78 Vineyard Hill, Wimbledon Park. Applications unanswered 5 days courteously declined.

SOUTH WALES.—Qualified Manager, married, for a good business in an industrial neighbourhood; Welsh-speaking preferred; good house attached; excellent opening for a Welshman anxious to make a good position for himself. "S.W." (160/122), Office of this Paper.

SUSSEX COAST.—Smart young Junior wanted (immediately); accustomed to good-class Retail and Dispensing; knowledge of Photography; applications not answered in seven days respectfully declined. Apply, stating salary required, etc., 155/25, Office of this Paper.

SWANSEA.—Qualified Manager; single preferred; Light Retail and Dispensing Business, with Surgical Department; knowledge of Photography essential; good salary and commission offered to the right man. "Swansea" (160/121), Office of this Paper.

WEST OF ENGLAND.—Wanted, well-educated Junior Assistant, in good-class business. Apply, giving full particulars, to "B." ("L." 3/85), Office of this Paper.

ASSISTANT, qualified, for good-class Dispensing, Fancy, and Photographic business. Full particulars (letters only) F. H. Long, Ltd., Chemists, 63 Holton Road, Barry, Glam.

ASSISTANT for good-class suburban Business. Apply, in first instance, stating salary, age, experience, and full particulars, 162/30, Office of this Paper.

CHEMIST'S Manager required for a business in colliery district (Co. Durham). Apply, giving references, experience, and salary required (enclose photo), 157/34, Office of this Paper.

IMPROVER or Junior (outdoors); state full particulars. Roberts (Chemists), Ltd., Belgrave Road, Dresden, Longton, Stoke-on-Trent.

LOCUM (lady); Liverpool suburb; either June 19th to 25th (inclusive), or June 26th to July 2nd, or July 10th to 16th; dinner and tea provided, but sleep at home; must be good Dispenser; will be helped in other work by experienced lady. State terms, 159/29, Office of this Paper.

MANAGER, qualified, required immediately for branch in East London; rooms provided; good salary to energetic man; personal interview preferred, but if not possible send photo and full particulars. Catto, Ltd., Chemists, 49 Cranbrook Road, Ilford.

MANAGER required for London suburb; age 26-40; must be a thoroughly experienced man, keen and capable Salesman, tactful, good Window-dresser, and must have knowledge of Photographic business; references to bear strictest investigation. Apply any morning, between 10 and 12 a.m., to General Manager, Parke's Drug Stores, Ltd., 65 Harwood Street, Kentish Town, N.W.1.

QUALIFIED Chemist and Optician required for high-class modern business in well-known East Coast town; knowledge of Photography an advantage. Apply, giving full particulars of experience, age, qualifications, etc., 152/26, Office of this Paper.

QUALIFIED man wanted for small country business; must be used to Agricultural trade; not under 30; single. Full particulars and references to 163/25, Office of this Paper.

ROGERS' Pharmacy has a vacancy for a qualified Assistant (male) with Dispensing and Counter experience. Apply Manager, 1 Beaumont Street, W.

UNQUALIFIED.—A first-class Assistant required for a good-class Retail and Dispensing business; must be an expert Salesman and have Photographic knowledge; only reliable and steady men need apply; Newcastle-on-Tyne district. Apply, stating age, salary required, height, enclosing photo (returnable), to 152/29, Office of this Paper.

UNQUALIFIED Junior Assistant (gentleman) required for Light Retail and Dispensing (N.H.I.); must be a capable, steady worker; give full particulars of experience, age, salary expected (outdoors), references, and photo, if possible. Raynes Dispensing Chemists, Ltd., 28 Bath Row, Birmingham.

UNQUALIFIED Assistant for London suburb, not over 30, and of good address; smart Salesman, capable Window-dresser, and experienced Dispenser; must have a knowledge of Photography. Apply any morning, between 10 and 12 a.m., to General Manager, Parke's Drug Stores Ltd., 65 Harwood Street, Kentish Town, N.W.

WANTED, beginning April, Junior, unqualified, outdoors, for Stock and Dispensing; knowledge of Photo business an advantage, not essential; easy hours; no Sunday duty. State age, salary required, and full particulars (photo if possible), to Knight & Son, Wincanton, Somerset.

WANTED, Junior Assistant (male), unqualified; outdoors; must have good references, and be used to Dispensing. Pharmacist, 180 Wood Street, Walthamstow.

WANTED (April 10th), for first-class Chemist's Business in Yorkshire seaside resort, qualified Lady Assistant; experienced Photography essential. Apply P.C.B. 9/29, Office of this Paper.

WANTED (immediately), a Junior or Improver, temporarily, for two or three months, for a good-class country business. Apply, stating salary required (outdoors), age, and usual particulars, to T. Goodman & Son, Chemists, Banbury.

WANTED, unqualified Assistant, about 30, outdoors; a permanency for a good and reliable worker if references prove satisfactory; state age, height, and salary required; for S.W. London Store trade. 162/15, Office of this Paper.

WANTED, unqualified Assistant, for high-class Dispensing, Light Retail, and Photographic Business in Devon; must be reliable Dispenser and good all-round man; permanency. Please state salary required, age, height, references, and enclose photo, "Coast" (161/39), Office of this Paper.

WOMAN Pharmacist, as Manager of shop, N.W. district (London); one able to take part share in business; must be capable business woman, and have had Retail experience. Apply 163/10, Office of this Paper.

WHOLESALE.

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

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COMMISSION men wanted to carry Packet Dyes; only men who can show good results need apply. Write, stating fully ground covered, to Viaduct Chemical Co., Huddersfield.

MANUFACTURERS require a smart, experienced London Representative, with sound connection amongst Chemists and Stores, for Surgical Rubber Goods; good commission and expenses. Apply 156/31, Office of this Paper.

NORWEGIAN Firm, dealing in non-freezing Cod-liver Oil, desires clever Representative for U.K.; must be well introduced amongst buyers of this commodity. Correspondence to be addressed to ("L." 3/86), Office of this Paper.

REPRESENTATIVE for Lancashire, with live connection amongst Chemists; application, giving full particulars, stating actual ground covered, recent testimonials, will be treated in strict confidence. Heaths, Ltd., Wholesale Chemists, 99 High Street, Liverpool.

REPRESENTATIVE required by a firm of Manufacturers, for the provinces; must be an experienced Salesman, with a knowledge of Chemist and Allied trades. Apply, giving full particulars, to ("L." 3/80), Office of this Paper.

REPRESENTATIVE.—An exceptional opportunity for a Representative of experience and acquaintance among Chemists in Shropshire, Staffordshire, and Warwickshire; well-established, well-advertised proprietary article. Address P.C.B. 8/32, Office of this Paper.

REPRESENTATIVE required, with sound connection amongst Chemists in London suburbs, for the sale of Toilet Soaps, Perfumery, etc.; thorough knowledge of the trade essential; state experience, age, and salary required. Apply 3/830, Office of this Paper.

REPRESENTATIVE, on commission, required for the sale of Toilet Soaps, Perfumery, etc., with live connection amongst Chemists in Cardiff, Swansea, and the greater part of Wales; thorough knowledge of the trade necessary. Apply, stating full particulars ("L." 3/83), Office of this Paper.

REPRESENTATIVE wanted for SOUTH WALES, also for YORKSHIRE GROUND, for Proprietary Line, well established, but which is now to be extensively advertised and developed; commission terms only, but on satisfactory basis, to suitable gentleman able to secure opening business with good Chemists and Drug Stores. ("L." 3/82), Office of this Paper.

REPRESENTATIVES, London and provinces, for high-class Perfumery and Toilet Goods; must be keen, with good connection among Chemists, Perfumers, Drapers, Stores, and Hairdressers; commission terms only. Write, giving full particulars, to "M." (161/29), Office of this Paper.

SEIDLITZ Powders, etc.—Representatives, on commission basis, wanted in all districts; live connection with Retail Chemists essential. State age, experience, and exact area covered, Raimes & Co., Ltd., Stockton-on-Tees.

SUNDRIES Wholesale Department.—Messrs. John Bell & Croyden, Ltd. (incorporating Arnold & Sons), require the services of a well-experienced Assistant in the above department; applicant must be well acquainted with sources of supply, values, etc.; good prospects of promotion to suitable man. Reply, General Manager, 5-6 Giltspur Street, E.C.

TRAVELLERS wanted on South Coast and Midland district to offer a good and cheap French Toilet Soap; liberal terms. Apply P.C.B. 9/15, Office of this Paper.

USEFUL Man required for Wholesale; must have some knowledge of Drug trade; 3 guineas weekly (48 hours). Lady Assistant, for Toilet Counter, Retail; able to assist generally when required. Full particulars, "Chemist," Bolton Co-operative Society, Ltd., Market Street, Bolton.

WANTED, Travellers, disposed to take up excellent Face Cream as a side-line, on good commission. Write P.C.B. 8/37, Office of this Paper.

SITUATIONS OPEN.

(Colonial, Indian and Foreign.)

INDIA.—Qualified Assistant required; good opportunity for reliable man; commencing salary Rs.375 monthly; passage out and home; four years' agreement. Apply E. H. (3/790), Office of this Paper.

FOR Paris, Assistant; qualified; accurate Prescriber, smart Salesman; knowledge of French indispensable. Write (enclosing photo, returnable) to Dumont, 4 Woodside Lane, N. 12.

SITUATIONS WANTED.

[HOME.]

RETAIL.

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

A.A.A.—LOCUM, experienced, take entire charge, booking dates; reasonable terms; abstainer; highest references. "Chemicus," Rames & Co., Chemists, York.

A.A.A.—CAPABLE Pharmacist; 25; good all-round experience; good references; London district; qualified. Please reply to 159/330, Office of this Paper.

A.A.A.—ASSISTANT; qualified; 25; eight years' experience; highest West-End experience; first-class Salesman, quick and accurate Dispenser; disengaged shortly. "Statim," 42 Burwash Road, Plumstead, S.E.

A.A.A.—ASSISTANT; 27; best-class experience; good Salesman, quick and accurate Dispenser; highest references. "Chemicus," 6 St. Loys Road, Bruce Grove, N. 17.

A.A.—ASSISTANT, qualified (lady), 23, requires post; five years' all-round experience Retail and Dispensing; good references; matriculated. 159/22, Office of this Paper.

A.1 REFERENCES, West-End and suburban experience, requires position as Manager, Locum, or Senior; age 29; disengaged April. "Qualified," 28 Melrose Avenue, Cricklewood.

A CAPABLE, experienced woman Dispenser (Hall) wants post or Locum; disengaged. "Dispenser," 108 Lower Richmond Road, Putney, S.W.

A LADY Assistant (23), Minor qualification, over four years' high-class Dispensing experience, requires position with Chemist or Doctor; Manchester district or South Coast preferred. Apply 159/38, Office of this Paper.

A QUALIFIED Pharmacist (37) desires engagement as Manager; 20 years' thorough experience; Dispensing, Photography, Optics, and Counter; permanency desired. "Chemist," 47 High Street, Tunbridge Wells.

A QUALIFIED Manager or Assistant; 20 years' experience; disengaged; permanency preferred. Davies, 31 Hemberton Road, Clapham, London, S.W.

A SMART Junior, 19, seeks good progressive berth; first-class City experience and good Salesman. P.C.B. 9/28, Office of this Paper.

A N experienced Assistant, elderly, requires part-time employment; temporary or permanent; moderate. "Statim," 38a Broadway Parade, Crouch End, N. 8.

A CCOUNTANT-SECRETARY, long experience Drug trade, open to act as Secretary, small Companies; Chemists' books written up weekly, monthly; inquiries invited. P.C.B. 9/26, Office of this Paper.

A DVERTISER wants job; Salesman or Stock; City and West-End experience Drugs, Surgical, Sundries, Toilet. "Rhei," 37 Brunswick Road, N. 15.

A PPRENTICESHIP desired by well-educated youth, age 16; S.E. district preferred. E. L., 223 Springbank Road, Hither Green, S.E. 13.

A PPRENTICESHIP.—Young lady, six months' experience, seeks a vacancy in good Dispensing Pharmacy; Liverpool district. 238 Westminster Road, Liverpool.

A S Assistant Dispenser; age 27; married; two years' experience as Assistant Dispenser and Dresser. Apply M.L. 75259/21, Office of this Paper.

A SSISTANT or Manager, age 36; single; educated Edinburgh University; thoroughly experienced; conversant with medical professions. Apply M.L. 97404, Office of this Paper.

A S ASSISTANT; 42; war service 15 months; 13 years' experience as Chemist's Assistant. Apply M.L. 8656/21, Office of this Paper.

A SSISTANT; 32; single; disengaged; 12 years' good experience Dispensing and Counter. "Chemist," Talwrn, near Newtown.

A SSISTANT; unqualified; 50; married; London and country experience; good Counterman and Dispenser; active and obliging; good stockkeeper; 2½ years last situation; now disengaged. Arding, 14 Claxton Street, Portsmouth.

A SSISTANT; unqualified; Dispensing preferred; present situation four years; experienced; good references; permanency. Innes, 2 Ferndale Road, Weymouth.

A SSISTANT; brisk Counter trade, light Dispensing, Windows, Stock; 55s.; provinces; references satisfactory; excellent General experience. "Provinces" (155/27), Office of this Paper.

A SSISTANT (32); unqualified; single; tall; experienced; energetic; good Salesman, knowledge Photography; permanency; reasonable salary; any district. Apply 159/28, Office of this Paper.

A SSISTANT disengaged; Dispensing, Counter, expert Window-dresser; 55s. weekly; unqualified; 45. Apply 161/10, Office of this Paper.

A SSISTANT, tall, 20, good references, desires either locum or temporary employment for few months. Apply 160/6, Office of this Paper.

A SSISTANT (30), tall, unqualified, single, desires change; all-round experience; reliable Dispenser, good Salesman and Window-dresser; well recommended by present employer. Wood, c/o Mr. Cooper, Chemist, Birkenhead.

A SSISTANT, 25, unqualified, expert knowledge Photography, Window-dresser, good Stockkeeper, requires position; can be at liberty immediately. Stickland, 5 Castle Street, Ludlow.

A SSISTANT; unqualified; 31; single; experienced Counter, Stock, and Dispensing. Searle, 2 Carlisle Avenue, Plymouth.

A SSISTANT (24½), tall, qualified, seven years' experience, requires position; moderate salary; interview London or Home Counties. Apply 162/40, Office of this Paper.

B IRMINGHAM or near.—Unqualified; 33; Dispensing, Photography, Counter; experienced; first-class testimonials; disengaged shortly. Apply 160/10, Office of this Paper.

B OLTON District.—Student-Associate desires change; six years' experience Counter and Dispensing, in Bolton and Manchester. Apply 162/11, Office of this Paper.

B RANCH Manager or Locum, qualified; 50; energetic; first-class all-round experience, London and provinces. "Alpha," 38 Wendover Road, Harlesden, N.W.

C —CHEMIST'S Son, young, qualified, of good education, appearance, and address, Square trained, with 16 months' management in large Pharmacy, desires post. "Keen," 29 Westcombe Hill, Blackheath.

C APABLE Assistant or Locum; experienced Dispenser; London; moderate salary; good reference last employers. "L.", 7 Roslin Terrace, Acton.

C APABLE Assistant; 26; well up in good-class Dispensing, also Counter and Photography; permanency; provincial. C. Haigh, 25 Stafford Parade, Halifax.

C HEMIST'S Assistant; age 26; married; 3 years' war service, 8 years as above; also Storekeeper of Veterinary Drugs. M.L. 41803, Office of this Paper.

C HEMIST'S Bookkeeper, disengaged two evenings weekly, to relieve principal of clerical work; 25 years' Wholesale and Retail experience. P.C.B. 9/30, Office of this Paper.

C LERICAL.—Day or evening work of any kind; writing up accounts and posting up books; terms moderate. Write "F. G." (134/14), Office of this Paper.

C UMBERLAND.—Lady, Hall qualification, accurate Dispenser, all-round experience, knowledge of bookkeeping, desires post with Chemist or Doctor. Apply 160/13, Office of this Paper.

D ISENGAGED (48); qualified Chemist, good Dispenser; accustomed N.H.I. work; good references; permanent, locum, or part time; moderate salary. "Statim," 172 Albany Street, Regent's Park, N.W.

D ISENGAGED; competent Assistant; locum or permanency. Arthur, 50 Ivanhoe Road, Grove Hill Road, Camberwell, London, S.E. 5.

D ISPENSER (lady), Minor qualification, excellent testimonials, some Hospital experience requires post, Hospital, Doctor, or as Dispenser in business. Pearson, Hillorest, Lowdham, Notts.

DISPENSER; age 26; single; qualified Dispenser; good experience; X-ray Operator and Electrician; General Medical Hospital and Chemical experience. Apply M.L. 50619, Office of this Paper.

DISPENSER; qualified; Hospital (or otherwise by arrangement); if in town part-time entertained. "Pharmacist," 5 Stanley Gardens, Hampstead, N.W. 3.

DISPENSER (young lady), Hall, experienced, desires post; free now. Sandes, 66 Queen Alexandra Mansions, London, W.C.

DISPENSER (lady); Hall; locum or permanent; experienced Hospital and Surgery (Bookkeeping); excellent testimonials, in London or near. Apply 162/31, Office of this Paper.

EASTERN COUNTIES.—Qualified; 29; abstainer; tall; single; neat, quick Dispenser; Counter, Prescribing, Photography; at liberty soon; requires permanency. Apply 163/12, Office of this Paper.

ELDERLY qualified Chemist desires employment, with short hours, or part time; country preferred. Baker, 81 Elgar Road, Reading.

EX-SERVICE; 3½ years' experience Stock, Counter, and Dispensing, desires further experience; 45s. weekly. Apply "Energetic" (161/16), Office of this Paper.

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